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Dr. Soyhunlo Sebu & Dr. Vanthangpui Khobung
Principal Investigators

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(A constituent unit of National Council of Educational Research and Training)

Under Ministry of Education, Govt. Of India

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एन सी ई आर टी
NCERT

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(A constituent unit of national Council of Educational Research and Training)
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ACKNOWLEDGEMENT

We are deeply indebted to honorable Prof. H.K. Senapaty, Director NCERT who inspired and motivated us to undertake research work.

We owe a deep sense of gratitude to respected Prof. Nityanand Pradhan, Principal, Regional Institute of Education, Bhopal who encouraged, guided and supported us at all stages in our research work.

We are grateful to Prof. P. Kulshreshtha, Head DEE for their support and co-operation.

We are indebted to our Resource Persons for tools preparation Prof. Ramesh Babu, Dr. Sanjay Pandagale, Dr. Premananda Sethy and Dr. Sangeeta Pethiya their suggestions and contributions.

We wish to place our gratitude to Dr. S.G Wadekar, Head, Department of Education in Social Science and Humanities, Regional Institute of Education, Bhopal, for his encouragement and generous support. We are thankful to all the faculty and staff of Department of Education in Social Science and Humanities, Regional Institute of Education, Bhopal, for their encouragement and support.

Our deepest thanks to Ms. Mariya Azmi and Govind Junior Project Fellow for their untiring efforts and sincerity in collecting and organizing data for this project.

Soyhunlo Sebu & Vanthangpui Khobung

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CHAPTER I
INTRODUCTION

Education is directly related to the development of an individual and the community. It is the most important single factor for economic development as well as social emancipation. In School education, Social Science has been one important subject. Social Science subjects at school level consist of selected themes from History, Sociology, Geography, Political Science and Economics. These themes are significant for the organization of society (within and in relation to environment and surroundings) based on understanding, accommodation, appreciation and co-existence. It sometimes involves concept and ideas which are significant, contemporary and complex. Dealing with the subject of Social Science in School is a challenging task for many teachers. Students also often inadequately comprehend the real issue at hand and mange to settle for the obvious without digging deep into the themes present in the Textbooks. Thus, the need for teacher training in Social Science goes without saying.

Social Science aims to develop a responsible citizen who will contribute for coherent society based on mutual respect and cooperation. Social Science subjects provides the basis for training learners in certain skills, habits and for inculcating attitudes and ideals that will enable them to take their place as effective and efficient members of a democratic society. Therefore, effective teaching and learning Social Science is very important. Teachers teaching this subject need to be equipped with

the required content, methods and technique required for effective transaction of the various themes of Social Science identified for learning at School level. Towards this end, Regional Institute of Education as a nodal agency responsible for catering the educational needs of the western region of India has been designing and conducting trainings in pedagogy of Social Science. This research project has been proposed to study the extent of implementation as well as the obstacles faced by teachers and teacher educators in implementation the same.

I.A. Conceptual Framework

Implementation is one important stage in public policy cycle (formulation, implementation and evaluation). It may be defined as an ongoing process of decision making by a variety of stakeholder including individuals and groups in order to realize the stated objectives. It encompasses those actions by individuals or groups that are directed at the achievement of objectives set forth in any programme. The ultimate outcome of implementation will be determined by the 'content' of the programme being pursued and by the action and interaction of the decision makers or stakeholders within a given 'context' (Grindle, 1980). A wide variety of factors may frequently intervene in the process of implementation. These factors may lead to the realization/non-realization of the stated objectives. Therefore, the study of implementation will not only focus on the status or nature of implementation but also the factors involve in the realization or non- realization of the stated objectives.

The aspect of Implementation by teachers in schools is a very crucial aspect in

teacher training. The context – School infrastructures, Resources, Support mechanism and most importantly teachers own motivation and action as well as the content – training and its content plays important role and ingredients for any successful implementation in School. The latter part being taken up partly in the module that was developed and the training programme conducted, its applicability at ground level and its context of implementation is the core emphasis of the present study.

I.B: Review of Literature

Extant literature related with social science learning through constructivist pedagogy and ICT integration are shown as follows:

Hong in Social Studies Teachers' Views of ICT Integration. RIGEO deals with the significance of role of teachers in using and integration of Information and Communication Technology (ICT). It stresses on the importance of teacher's attitudes towards successful ICT integration. Teachers are required to have a positive attitude. Providing well-organized ICT teacher training is essential in encouraging teachers to view ICT positively. Teachers' opinions, concerns, and needs regarding ICT integration should first be identified in order to provide better support for social studies teachers using ICT. Social science teachers' views, experiences, and attitudes towards ICT integration via individual face-to-face interviews with 23 social studies teachers in Colorado, USA found that the majority of the participating teachers had positive attitudes towards ICT as an instructional

tool. They wanted to learn more about ICT for effective use in their classrooms.

Claire and Graeme in Effective pedagogy in social sciences. International Academy of Education and International Bureau of Education IBE states that learners make sense of new information by relating it to concepts and ideas stored in their long-term memory, and through a complex process of selecting, sorting and integrating it with prior knowledge. Teachers need to identify and understand what prior knowledge their students, and particular groups of students, possess in order to support this sense-making process. By distinguishing new learning from existing learning, teachers become aware of understandings that can be used as a resource for further learning and also misunderstandings that could get in the way of further learning. Students develop their understandings and capabilities through discussion with their peers—but only if they have the necessary dialogue and group co-operation skills. Explicit teaching and modelling of these skills is crucial, as is feedback. Involving students in developing the norms for group work can lead to improved group functioning and a greater contribution to dialogue.

Miljana in Applications of ICT in Social Sciences advocates that the use of information and communication technologies (ICT) is an ever-growing phenomenon in Social Sciences. Teachers teaching Socials sciences are constantly striving to create ideas and methods for a better use of information based on the need of knowledge about society and economy. This study analyses the use of ICT in a variety of examples taken from different fields such as education, web clipping,

public safety, tactic knowledge, or protection of intellectual property and offers an outline of state-of-the-art applications of ICT in social sciences.

Hoagland in Utilizing Constructivism in the History Classroom advocates that applying constructivist concepts to the teaching of social studies can revolutionize the learning environment. It also perhaps recaptures the joy of learning that is central to human nature. There are many versions of constructivism that can alter educational approaches called radical and social constructivism. The social context of learning is at least as important as what happens in the mind of an individual according to social constructivist. Interacting with others lead to public understanding and shared sense of what information is right and what is wrong. Group interaction is the key. McKay (2000) opines that the teacher's role is to be a collaborator. Teacher is a participant with the children in constructing reality. This is to be done by engaging in open-ended inquiry that elicits and addresses students' misperceptions and the teacher interacts with the students to come to new understandings. Group work and class discussions are the critical activities in a classroom

Steele in Teaching Students with Learning Disabilities: Constructivism or Behaviorism? suggests that learning should be meaningful and related to real life situations. The author cited examples in Social science where students could role play as lawyers, judge, and jury for a simulated court case or conduct an election for classroom leaders instead of memorizing the related procedures and policies.

Teachers following a constructivist perspective base their instructions on what the student already knows as a foundation. focus on key ideas and the relationship of these ideas within the subject area is another principle underlying the constructivist approach. For instance, in social studies themes such as conflict and diversity might be used to teach units on warfare, exploration, and government at many different grade levels.

Duhaney & Duhaney Assistive Technology: Meeting the Needs of Learners with Disabilities states that active involvement of students in the lesson help them in retaining and learning the information. Therefore, active learning is an important facet of a constructivist approach to instruction. It is highly recommended that teacher assign projects involving maps and posters, planning trips and routes as motivators for students.

Ayers and Frazee opines that all forms of constructivism are ineffective because rather than focusing on the content knowledge that should be the centerpiece for teaching and learning, they focus on how social studies should be taught. Everyone is caught up in structuring a learning environment. No one gives much thought to what is or is not actually learned. The foregoing literature works mainly focusses on the importance, significance and process of constructivist approach and ICT. Studied related with the ground reality especially or dealing with primary data is fewer. Being a nodal agency conducting teacher training programme frequently, it is pertinent for educators to established linkages with the theory/programme

conducted and practices at the ground level. This aspect is needed to be emphasize more for formulating amore student-centric training programme in the future. Hence this project geared towards fulfilling this gap.

Mehmet Acikalin in The Use of Computer Technologies in The Social Studies Classroom identifies that the use of technology in education has become more popular. Special attention has been given to the adaptation of computer technology into teaching-learning process for effective learning and increasing students' achievement. In this paper, a number of computer-based instructional strategies used in the social studies education are reviewed. It seems that the Internet has become the most popular one among all computer-based instructional strategies in the social studies classroom. Social studies content requires substantive content knowledge and the Internet is a great source for this. The Internet provides a wide variety of sources, which represent different points of view. Using sources, which represent different worldviews is one of the best ways to foster students' critical thinking, creative thinking, problem solving and decision-making skills.

Kimeko McCray in Constructivist Approach: Improving Social Studies Skills Academic Achievement" Online Submission, ERIC describes a program that is designed to enhance social studies skills and knowledge. The target areas for enhancement are geography, economics, history, and core democratic values. He conducts a survey with a sample of 25 teachers between the ages of 25 and 50 years old throughout the Southeast Michigan, including urban and suburban schools that

teach Social Studies. The survey statements were design to assess the level of teacher's agreement with the questions such as what is constructivism? Are constructivism methods effective or ineffective? To what extent does constructivism contribute to increasing student's academic achievement and skills in social studies? Most participants agreed that various form of constructivism such as Cognitive Constructivism, Social Constructivism, and Radical Constructivism. improve social studies skills. The teachers also agreed that their students learn best when they can relate to the subject manner. Majority of the teachers agree that they currently use some form of constructivist in their classroom. The teacher's role is to simplify students learning by prior experiences and the creation of new ideas.

Yasemin Gulbahar in A Survey on ICT Usage and the Perceptions of Social Studies Teachers in Turkey describes the various equipment's that have been used in past decades and how the integration of information and communication technologies can help revitalize teaching and learning for teacher and students. ICT integration in schools is needed in order to accomplish many objectives and improve the quality of lessons in all subject areas as well as social studies. ICT increasingly pervades various aspects of our daily lives like work, business, teaching, learning, leisure and health. Every individual in a society should become technology competent. Thus, all schools have to be equipped with the necessary ICT in order to provide the next generations with the needed tools and resources for access and use and to attain the expected skills.

Insung Jung in ICT-Pedagogy Integration in Teacher Training: Application Cases Worldwide explains teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies such as social networking, online teaching, class blogs, podcasting, interactive whiteboards, and mobile devices are demanding teachers to learn how to use these technologies in their teaching. While new technologies increase teachers' training needs, they also offer part of the solution. Information and communication technology (ICT) can provide more flexible and effective ways for professional development for teachers, improve pre- and in-service teacher training, and connect teachers to the global teacher community. This paper analyses and organizes a variety of approaches found in ICT uses in teacher training into a four-cell matrix. Based on the analysis of those approaches, it discusses new possibilities and challenges that ICT has brought to teacher training and professional development. It concludes with discussion of emerging research issues with respect to ICT integration into teacher training and networking.

Baishakhi Bhattacharjee in Role of ICT in 21st Century's Teacher Education states that Teaching occupies an honorable position in the society. In modern science and technological societies education demands more knowledge of teacher regarding ICT and skills to use ICT in teaching –learning process. Nowadays ICT's are transforming schools and classrooms a new look by bringing in new curriculum based on real world problems, projects, providing tools for enhancing learning,

providing teachers and students more facilities and opportunities for feedback. ICT is one of the major factors for producing rapid changes in our society. It can change the nature of education and roles of students and teacher in teaching learning process. Teachers in India now started using technology in the class room. Laptops, LCD projector, Desktop, EDUCOM, Smart classes, Memory sticks are becoming the common media for teacher education institutions.

I.C: Rationale and Objective of study

The training programme on social science was conducted with the objective of building the capacity of teachers in terms of awareness and practice on constructivist pedagogy and ICT and their effective integration. In order to realize these objectives, the aspect of implementation by the participants at the ground level regarding what they have learnt, the content and materials acquired (what they have learnt and material given to them) in the training programme is of crucial importance. It is also important to identify the constraint faced by them in the process of implementation. This programme therefore attempts to assess the implementation aspect of the Social science training programme conducted.

The Social science teachers of Goa have been trained on various social science pedagogy and content enrichment for the last few years. However, so far, no follow up research has been conducted to understand whether the training pedagogies and contents have been successfully implemented in their classroom. Therefore, this study will try to fill this gap. It will focus on the status of implementation,

effectiveness and also the obstacle in implementing the content of the training programmes. The finding of such research project will enrich the teachers training programme in future. The objective of the study includes the following:

- to study the availability of Infrastructure in Schools
- to study the extent of implementation of Constructivist pedagogy in the classroom processes of Social Science
- to examine the extent of integration of components of Information and Communication Technology (ICT) in Social Science classrooms processes
- to find the obstacle / problems in implementing pedagogical process imparted in the training programme.

The outcome of the research can be used by the department of education in implementing education policies and direction in the state

I.D. Research Methodology

The study draws its data from both primary and secondary sources. Primary data was collected from teachers from teacher's education college and Schools in Goa drawn through purposive random sampling. 23 school teachers and teacher educators from teacher's education college, and Schools attended the training programmes in conducted by Regional Institute of Education at SCERT Goa. Principals/Headmasters and Schools under study were also selected purposively and Interview Schedule was administered to them. The second group of respondents for primary data includes group of students randomly drawn from different classes

from 9 schools under study. The descriptive statistics of respondents is shown in Table 1.1.

Table 1.1. Descriptive Statistics of Respondents

S.No.	Name of Schools	No. of Head master	No. of Students	No. of teacher
1	GHS, Torse-Pedne Goa	1	10	1
2	Our Lady of Rosary High School, Donapaula	1	10	1
3	A.J.De Alemida High School	1	10	1
4	GHS Pissurlem Sattari	1	10	1
5	Mushtifund High School, Cujira	1	10	1
6	Our Lady of Carmel High school, Curtorim	1	10	1
7	St. Sebestian High School Loliem Canacona	1	10	1
8	GHS Advoi Sattari	1	10	1
9	Balram-A day care school	1	10	1

From these respondents, data relating to school's infrastructure, implementation of constructivist pedagogy and ICT integration in classroom process and its success and problems were collected. Different tools such as Interview Schedules, Focus Group Discussion, Interview and Diary were used in the process of data collection. These tools are attached as Annexure at the end of the Report. On the basis of information gather through literature reference, the survey or research tools is developed, and finalized for collection of data in the field.

Secondary data was collected from Journals, Reports and Books. The data collected from both primary and secondary sources formed the basis of analysis of the study. Data collected was fed into Microsoft Excel sheet, classified and analyzed using simple statistical tools i.e. percentage and average. The discussion and result from this exercise are organized and put under various chapters.

I.E: Organization of Chapters

The detail discussion of different themes based on the collected data and its analysis is presented under different chapters. Chapter II examines the availability of infrastructure in schools. Chapter III examine the constructivist pedagogy reflected in the classroom processes. Chapter IV analyze components Information and Communication Technology and its integration in the teaching and learning of Social sciences in Schools under study. Chapter V reflects the finding of the study and suggestions based on that. Chapter VI deals conclusion. These are elaborated further in the subsequent chapters.

CHAPTER II

SCHOOL INFRASTRUCTURE/FACILITIES

School is a place where a child spent maximum time, apart from home. The worldview of a child is also shaped in school to a great extent. In this aspect, infrastructure of schools can play important factors in creating a favorable environment for child's overall growth. It can create positive orientation in child's aesthetic worldview. It can create a certain degree of comfort for the child to be responsive towards the class. It prepares the child for different field of career and exposed to ideas and practices outside curricular domain. Overall, the door to the whole system of education is through infrastructure.

Infrastructure is a physical or human resource that have evolve into a certain form or develop into a visible shape and pattern or exhibit a certain phenomenon. These resources can act as a base for a higher level of development or help/assist in making things/object more concrete. It can also be understood in terms of a necessity in creating enabling conditions or environments for the subsequent progress. In the teaching learning process, infrastructure plays an important and crucial role. Following are the basic infrastructure required in Schools.

1. Availability of Playground

2. Availability of Sports and games materials

3. Provision of electricity

4. Provision of safe drinking water facilities

5. Toilet facility separate for boys, girls and teachers

6. Gardening facility

7. Library facility

8. Cultural hall

9. Provision of MDM

10. Sufficient numbers of social science teachers

11. Availability of Social Science Lab

12. Interactive White Board

13. Internet Connection

14. Computer

15. Projector

16. Hostel facilities

17. Canteen/kitchen shed

18. Security camera

19. Biometric attendance system

20. Medicare

Other non-physical infrastructure facilities such as social awareness programme on various social issues, cultural activity, school environment, provision of field trip/field study etc were also observed.

The availability of basic infrastructure as listed above in different schools is examined in this chapter. The analysis is from two perspectives – Item wise and school wise.

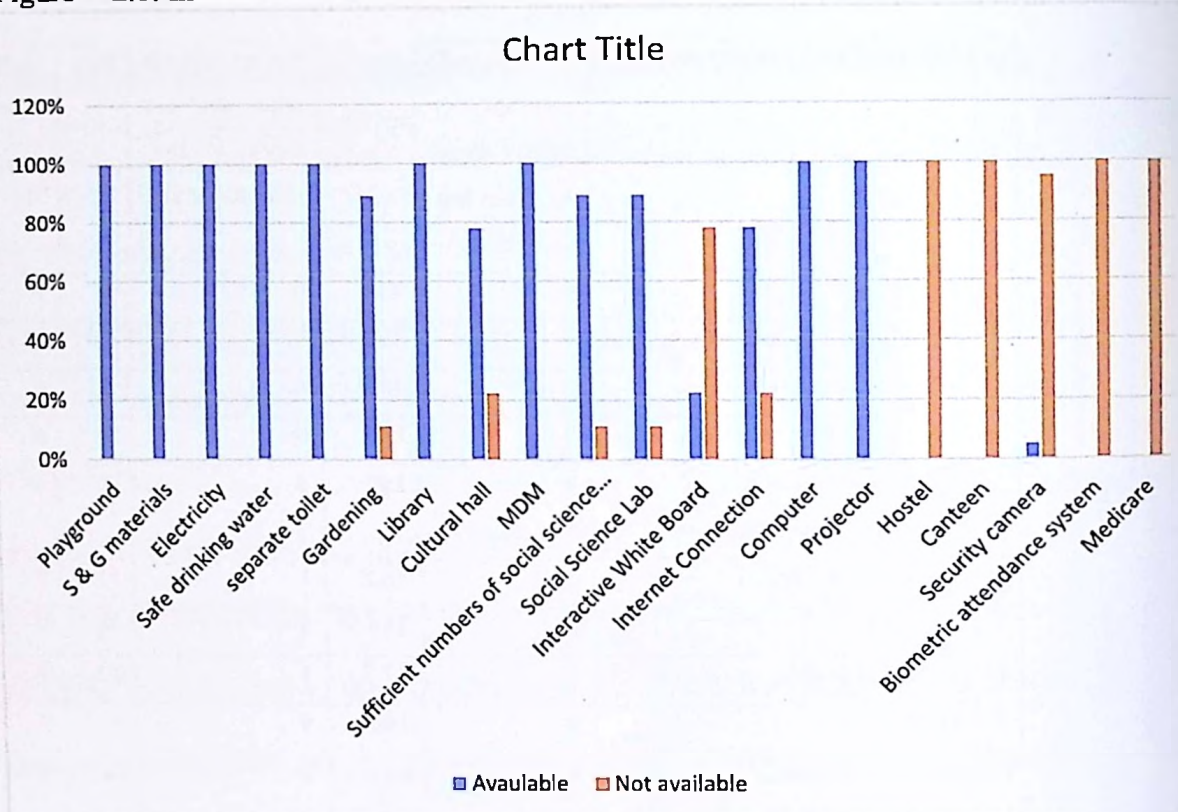
II.A. Item wise availability of Infrastructure in Schools

This section attempts to find out the item-wise availability of infrastructure in Schools. Table 2.1 shows the infrastructures which are available in the schools under study. The first item of infrastructure taken for study is the availability of Playground in Schools. It is observed that all the schools under study has playground and have equipment for games and sports, electricity connection, safe drinking water facility, separate washroom for boys, girls and teachers, and library facilities. As per the response from head of schools, it is learned that every student get scholarship, school conduct cultural programme and field trip for students, have enough classroom, enough bench and desk, most of the school have ICT facilities, such as computer, projector and internet connection.

Table 2.1. Infrastructure/ Facilities available in all schools

	Items of Infrastructure	No. of schools complying or having facilities	%	No. of schools who do not have the infrastructure	%	Total no. of schools
1	Playground	9	100	0	0	9
2	Sports and games materials	9	100	0	0	9
3	Electricity	9	100	0	0	9
4	Safe drinking water facilities	9	100	0	0	9
5	Toilet facility separate for boys, girls and teachers	9	100	0	0	9
6	Gardening facility	8	88.8	1	11.2	9
7	Library	9	100	0	00	9
8	Cultural hall	7	77.7	2	22.3	9
9	MDM	9	100	0	0	9
10	Sufficient numbers of social science teachers	8	88.8	1	11.2	9
11	Social Science Lab	2	22.3	7	77.7	9
12	Interactive White Board	2	22.3	7	77.7	9
13	Internet Connection	7	77.7	2	22.3	9
14	Computer	9	100	0	0	9
15	Projector	9	100	0	0	9
16	Hostel	0	00	9	100	9
17	Canteen	0	0	9	100	9
18	Security camera	1	0	8	100	9
19	Biometric attendance system	0	0	9	100	9
20	Medicare	0	0	9	100	9

Figure - 2.1: Infrastructure/ facilities available in all the school



The scenario in schools under study thus far has exhibited a positive image in terms of infrastructure availability except some few infrastructures listed for study.

It is observed from the Table 2.1 that majority of the schools have gardening facility, Midday Meal Scheme, sufficient numbers of social sciences teachers, projector inside the classroom, cultural hall, Medicare, security camera. Other essential infrastructure such as, Interactive White Board, canteen and biometric attendance system etc are not found in many schools. Internet connection facilities enable teacher to incorporate a variety of learning resources in the teaching

learning process. It helps in accessing to the various websites, live programmes and to conduct different activities that may need internet connection. Using Projector in classroom makes can makes the teaching learning process more interesting. It helps and assists the learning process. Projector facilitates the use of audio visuals inside the classroom. This stimulates student's curiosity and eagerness to learn more. Computer helps in gathering, storing and dissemination of learning materials to a great extent. It helps in aggregating more resources that can be easily used in the course of teaching and learning. It can store a vast data that can be easily accessible. It also helps in faster and wider distribution of data and materials to students. As Social Science subject encompasses the entire aspect of human society, its learning also requires a wide variety of resources, techniques, methods and processes. Computer assists and helps learning the subject in a great way.

Data on the availability of Interactive White Boards (also known as smart boards) shows that majority of the schools do not have Interactive White Board (IWB) in their classroom. Only two Schools (out of 9 schools) have IWB in classroom. IWB is a useful instructional tool which allows computer images to be accurately displayed on board with the help of a digital projector. The elements on the board can then be manipulated by the instructor using a mouse, stylus, pen or his finger and this can be done directly on the screen. It allows items to be clicked, dragged, copied and even the handwriting of notes is possible. The

handwriting can then be easily transformed to text before being saved.

Social Science learning can also be enriched by having Social Science laboratory. The social science laboratory furnishes motives and objectives to the social sciences as well as helps discover abilities in the individual children and direct them in the choice of study that will develop these abilities. A social science laboratory should serve the purpose of a library, workshop, classroom, a stock room, a student's club etc. It Creates and maintains an effective teaching-learning environment, proving a quick and ready functional environment by making available workroom for the students, introduces variety in teaching methods and facility aids readily and conveniently. It also saves energy and time in carrying around equipment such as charts, maps, models, pictures and projectors. The study observed that only 2 (22.3%) of the school under study have social science laboratory facilities and majority of the school doesn't have social science laboratory.

Human Resources i.e. teachers teaching Social science is found to be adequate in majority of the Schools. Few schools reported inadequate social science teacher. This is very much a general picture scanning across school in India. Even mismatch between teacher present on paper and the real presence in the schools is often seen in many cases.

The study observed that every school under study conducted social awareness programme for students. Programme such as swachhta awareness, jal sanrakshan,

eco club activity, post card writing activity, slogan writing, poster writing, anti-tobacco awareness etc. social awareness programme is a crucial activity of a school education. It enables child to understand social issues and challenges and make them a better citizen.

The study observed that every school under study implement Mid-Day Meal scheme (MDM). The study further observed that it helps students attendance, enrollment etc. Midday Meal Scheme (MDS) scheme is implemented in all the Primary and Upper Primary School under study. MDS is a Government of India initiated programme, designed to improve the nutritional standing of school children in primary and upper primary classes. Through this programme, children are provided free lunch in all working days in Schools. Government Schools, Government aided schools, Schools under Municipalities, Madrasa supported under Sarva Shiksha Abhiyan (SSA), Alternative innovative Centers and National Child Labour Project Schools run by the ministry of labours are the schools covered under these schemes. Many studies have shown the benefits of these schemes. Some of these are improvement in school enrolment, reducing in dropout rate etc.

The study observed that none of the school have hostel facilities, canteen/kitchen shed, security camera, biometric attendance system and Medicare facilities.

II.B. Availability of Infrastructure (School-wise)

Govt. High School Torse-Pedne Goa is a rural school that accommodates around 450 students. As per the data given in table 2.2, about 60 percent of the infrastructure under study is available in Government High School, Torse-Pedne Goa. Infrastructure such as playground (indoor and small ground for shooting balls, kho kho and table tennis) Sports and games materials, electricity, safe drinking water, separate washroom facilities, Library facility, Mid-Day Meal are available. The school has setup kitchen garden in collaboration with Agriculture department and medicinal garden in collaboration with Forest department Govt. of Goa. The school have e-learning facilities with 35 students setting capacity. Various programmes like cultural programme and awareness drive such as cleanness campaign, anti-malaria, anti- tobacco etc are organized in the school. The school organize field visit/field study occasionally for students. The School have enough faculty teaching Social Sciences.

Table 2.2: Availability of Infrastructure in Government High School, Torse-Pedne Goa

Sl.no.	Particulars	Yes/No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes

7	Library	Yes
8	Cultural hall	Yes
9	Provision of MDM	Yes
10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	No
12	Interactive White Board	No
13	Internet Connection	No
14	Computer	Yes
15	Projector	Yes
16	Hostel	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes = 12 (60%) No=8 (40%)

About 40 percent of the infrastructure listed for study is not available in Government High School, Torse-Pedne Goa. Internet facilities, Social Science Lab and interactive white board, hostel facilities, canteen etc which can assist and help students in learning Social Sciences is not available. Despite these, the performance of this school in term of availability of infrastructure is quite satisfactory.

Our Lady of the Rosary High school offers a comprehensive curriculum that falls

under the preview of Directorate of Education, Govt. Of Goa. In 1954 classes in Konkani were started under the shade of trees and in the verandha, a dispensary and a day crèche for children was opened. Today, the school have classes from primary to higher secondary section. As per the study, the school have about 75 percent of the infrastructure listed for study available in the school.

Table 2.3: Availability of Infrastructure in Our Lady of Rosary High School, Donapaula, Goa

Sl.no.	Particulars	Yes/No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural Hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	Yes
12	Interactive White Board	No
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	yes

16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes = 15 (75%) No=5(25%)

Facilities and provisions such as playground, Games and Sports materials, electricity, safe drinking water, separate washroom facilities, Library facility, Mid-Day Meal, ICT facilities such as Internet, Computer and Projector are available in the school. School conduct cultural programme and social awareness programmes such as poster writing, eco club activity, swachhta awareness, anti-tobacco etc. field trip/field study is organized occasionally for students. It is further observed that the School also have enough faculty teaching Social Sciences. However, infrastructure such as Interactive White Board, hostel, canteen security camera biometric attendance system and Medicare are not available in the school. The overall observation in terms of availability of infrastructure is found to be adequate in the school.

A.J.de Almeida school is named after Antonio Jose de Almeida, a Portuguese republican statesman during Portugal's rule in Goa. As per the Head Master of A.J.De Almeida High School response, the school have about 65 percent of

infrastructure listed for the study.

Table 2.4: Availability of Infrastructure in A.J.De Almeida High School

Sl.no	Particulars	Yes/ No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	No
12	Interactive White Board	No
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes=13 (65%) No= 7 (35%)

It is observed that the infrastructure such as Social science lab, Interactive White Board, hostel facilities, canteen/ kitchen shed, biometric attendance system, security camera, and Medicare facilities. Other basic infrastructure such as Playground, Games and Sports activities, electricity, safe drinking water facilities, separate washroom for boys, girls and teachers are available in the School. School organized field visit for students. Adequate teachers are there to teach Social Science. Basic ICT requirements are available in this School. Opportunities for students to get exposure are also created by conducting cultural and social awareness programme in the school. The overall observation in terms of availability of infrastructure is found to be adequate in the school. It is also learned that the school encourage local talent and preserve its rich cultural heritage by promoting music, theatre and dance.

Govt. High School, Pissurlem was established in 1984 and managed by the Directorate of Education. It is located in rural area. The school is co-educational and it doesn't have an attached pre-primary section.

As per the study, the school have about 60 percent of the infrastructure listed for study. It is observed that basic infrastructure such as social science lab, Interactive White Board, sufficient social science teacher, Medicare, hostel facilities, canteen, security camera and biometric attendance system are not available in the school. Other infrastructure like Playground, Games and Sports activities, provision of electricity, safe drinking water facilities, separate washroom for boys,

girls and teachers, library (1284 books), gardening facilities, computer lab etc are available in the school.

Table 2.5. Availability of Infrastructure in Govt. High School, Pissurlem Sattari

Sl.nos	Particulars	Yes/ No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural Hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	No
11	Social Science Lab	No
12	Interactive White Board	No
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes=12 (60%) No=8 (40 %)

School organized field visit/ field study for students occasionally. Cultural and

social awareness activities are conducted to promote student's talents and motivate them to be an agent of change in society. Basic ICT tools and components such as internet connection, computer, projector are available in the school. Cultural programme and awareness programme are also organized for students to promote their talents and motivate them to be an agent of change in society. The overall observation on availability of infrastructure is found satisfactory.

Mushtifund high school is the oldest non-profit educational institute in the state of Goa and was established on 5th October 1908.

Table 2.6 depicts the availability of infrastructure in Mushtifund High school, Cujira. The data shows that 75 percent of the infrastructures listed for examination are available in this school.

Table 2.6. Availability of Infrastructure in Mushtifund High School, Cujira

Sl.no.	Particulars	Yes/No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	Yes

11	Social Science Lab	No
12	Interactive White Board	Yes
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	Yes
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes = 15 (75 %) No = 5 (25%)

As the study, the school doesn't have Social Science Lab, hostel facilities and canteen. Provisions for basic necessity such as safe drinking water, separate washroom for boys and girls, Mid-Day Meal, electricity are available. The school have smart classroom, a resource room, a science workshop room, cookery room, library, music room, sport equipment like basketball, volley ball, indoor badminton court, table tennis, chess and carom. These facilities cater the all-round development of students. Infrastructure such as social science lab, hostel facilities, canteen, biometric attendance system and Medicare are not available in the school. Overall, the availability of infrastructure in this school is found to be satisfactory.

Our Lady of Carmel school is a co-educational institute conducted by the Diocesan society of Education, Panjim. As per the study, about 65 percent of the

infrastructure under study are available in the school. Playground, games and sports equipment, provision for drinking water, MDM, electricity is seen in the school under study. ICT facilities such as computer laboratory, Internet connection, and projector are available for use in the classroom and teaching learning process in general.

Table 2.7: Availability of Infrastructure in Our Lady of Carmel High School, Curtorim

Sl. No	Particulars	Yes /No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	Yes
12	Interactive White Board	No
13	Internet Connection	No
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No

19	Biometric attendance system	No
20	Medicare	No
	Total	Yes=13 (65 %) No=7 (35%)

However, the school doesn't have interactive white board, internet connection, hostel facilities, biometric attendance system and Medicare. School organized cultural and social awareness programme such as anti-tobacco, eco club, swachhta awareness etc for student. Field trips are organized for students to historical/ geographical and other important site for social studies. The overall observation found that the school is equipped with basic infrastructure.

St. Sebastian high school, Loliem Goa is a recognized institution by the Goa Govt. and Bethany Educational Society Goa sees to its management. St. Sebastian's High School is essentially a minority institution.

Table 2.8. Availability of Infrastructure in St. Sebastian High School Loliem

Sl.No	Particulars	Yes/No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural hall	No
9	MDM	Yes

10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	No
12	Interactive White Board	No
13	Internet Connection	Yes
14	Computer	yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes = 12(60%) No=8 (40 %)

The study observed that St. Sabastian High School Loliem have about 60 percent of infrastructure such as playground, electricity, safe drinking water, separate toilet for boys, girls and teachers, library, computer and projector etc listed for study. However, infrastructure such as cultural hall, social science lab, interactive white board, Medicare, canteen, and biometric attendance system. School organized cultural and social awareness programme for students. Field trip /visit are conducted for students to historical / geographical and other important site of social studies.

Govt. High school Advoi is a rural school located in Advoi, Sattari Goa. This school is considered as one of the finest school in a surrounding area. As per the study, Govt. High school Advoi have about 60 percent of infrastructure listed for study available in the school. Basic infrastructure such as playground, electricity,

safe drinking water, separate toilet for boys, girls and teachers, library etc which are essential for all round development of a child are available in the school.

Table 2.9: Availability of Infrastructure in Govt. High School Advoi

Sl.no	Particulars	Yes/ No
1	Playground	Yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	Yes
7	Library	Yes
8	Cultural hall	Yes
9	MDM	Yes
10	Sufficient numbers of social science teachers	Yes
11	Social Science Lab	No
12	Interactive White Board	No
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No

	Total	Yes = 12 (60%) No= 8 (40%)

The study observed that infrastructure such as social science lab, interactive white board, hostel facility, canteen, security camera, biometric attendance system and Medicare are not available in the school. The school organized cultural and social awareness programme for students. Field trip to historical and geographical important site are organized occasionally. The overall observation shows that the school have most of the infrastructure listed for study.

The study observed that Balram-A day care school have about 60 per cent of the infrastructure listed for study. As per the data displayed in the table 2.10, all the ICT tools and components such as Interactive white board, internet connection, computers and projector listed for the study are available in the said school under study. Infrastructure such as playground, electricity, safe drinking water, toilet for boys and girls, enough classroom etc are found in this school.

Table 2.10: Availability of Infrastructure in Balram-A day care school

Sl.no	Particulars	Yes/No
1	Playground	yes
2	Sports and games materials	Yes
3	Electricity	Yes
4	Safe drinking water facilities	Yes
5	Toilet facility separate for boys, girls and teachers	Yes
6	Gardening facility	No

7	Library	Yes
8	Cultural Hall	No
9	MDM	Yes
10	Sufficient numbers of social science teachers	yes
11	Social Science Lab	No
12	Interactive White Board	Yes
13	Internet Connection	Yes
14	Computer	Yes
15	Projector	Yes
16	Hostel facilities	No
17	Canteen	No
18	Security camera	No
19	Biometric attendance system	No
20	Medicare	No
	Total	Yes=12(60%) No=9(40%)

The study also observed that infrastructure such as social science lab, garden, hostel facilities, canteen, security camera, biometric attendance system, Medicare and cultural hall are not available in the school. School organized social awareness programme such as cleanness, anti-tobacco, girl's education etc. field trip/visit are not organized by the school. The overall shows that the school have most of the infrastructure listed for study in the school.

Table 2.11. Availability of infrastructure across Schools

S.No.	Name of Schools	No. of items available	%	No. of items not available	%
1	Government High School, Torse-Pedne Goa	12	60%	8	40%
2	Our Lady of Rosary High School Goa	15	75%	7	25%
3	A.J.De. Almeida High School, Goa	13	65%	7	35%
4	Govt. High school Pissurlem, Goa	12	60%	7	40%
5	Mushtifund High School Cujira, Goa	15	75%	5	25%
6	Our Lady of Carmel High school, Goa	13	65%	7	35%
7	St. Sabastian High School Loliem, Goa	12	60%	8	40%
8	Govt. High school, Advoi Sattari, Goa	12	60%	8	40%
9	Balram-A day care school, Goa	12	60%	8	40%

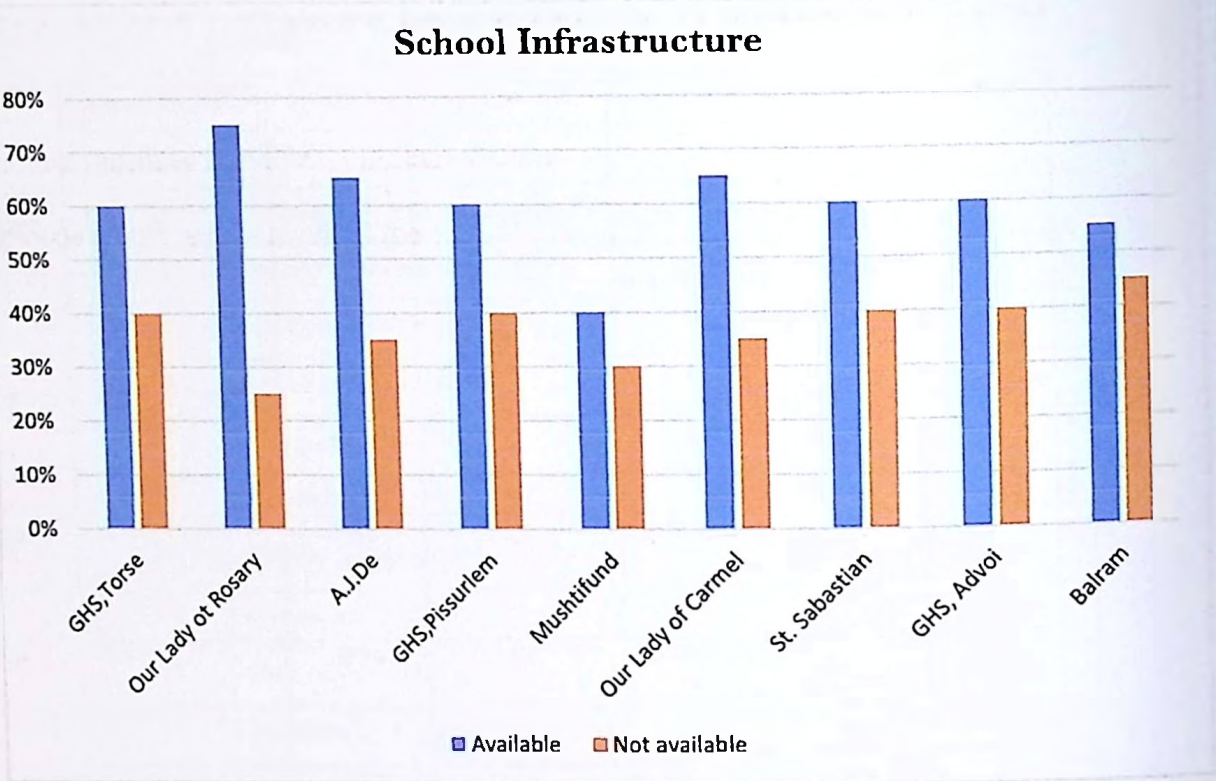


Figure 2.2: School infrastructure

The overall observation of availability of infrastructure in the school shows that every school is well equipped for all round development of students. Table 2.11 and figure 2.2 shows the variation of availability of infrastructure in different schools under study. The table reveals that Our Lady of Rosary High School Goa, and Mushtifund High School Cujira, have about 75 percent of the infrastructure listed for study. A.J.De. Almeida High School, Goa, Goa, and Our Lady of Carmel High school have about 65 percent of the infrastructure listed for study and Government High School, Torse-Pedne Goa, Govt. High school Pissurlem, Goa, St. Sabastian High School Loliem, Goa, Govt. High

school, Advoi Sattari, Goa and Balram-A day care school, Goa have about 60 percent of infrastructure listed for study.

However, Infrastructures such as hostels facilities, canteen, security camera, biometric attendance system and Medicare are not found in almost all the schools.

CHAPTER III

IMPLEMENTATION IN SCHOOLS: CONSTRUCTIVISM IN CLASSROOM PROCESSES

Constructivist pedagogy is one of the main themes for training programme. Constructivist pedagogy basically derived from constructivism theory (scientific study on how people learn). In the classroom situation, the constructivist pedagogy of learning can be a number of different teaching practices. In general sense, it usually means encouraging students to use their ideas, experiences and real-world problem solving to create more knowledge and then to reflect on and talk about what they are doing and how their understanding is changing in respect to classroom learning. The task of the teacher is to understand the students pre-existing conceptions or prior knowledge before initiating any topic. Teacher's role as a guide during activity is an important aspect of constructivist pedagogy. The research schedule to collect data and information is prepared on the basis of training theme and topic that was imparted during training programme. In this connection, three types of schedule are prepared viz., classroom observation schedule, focus group discussion with students and focus group discussion with teachers. The following themes were used in classroom observation, focus group discussion with students and focus group discussion with teachers.

1. Teachers created situation that lead students to reflect on his/her prior knowledge and experience

2. Activities in the class to arouse curiosity of students
3. Contents of the lesson are link with student's daily activities
4. Students participation in teaching learning process
5. Provides equal opportunities to every student
6. Innovative techniques integrated in teaching learning process
7. Cooperative learning techniques used in teaching learning process
8. ICT components/tools used in teaching learning process
9. Critical questions raised by teachers and students during teaching learning process
10. Questions entertained by teachers anytime in teaching learning process
11. Clarification of concepts provided by teachers to students
12. Regular evaluation done in teaching learning process by the teacher
13. Evaluation strategies used in classroom: individual, group, presentation etc
14. Any Project/Assignment based on collaborative work
15. ICT based Project or Assignment given to students

III.I. Reflection / prior knowledge of students:

Children come to school with broad range of prior or pre-existing knowledge and

experiences which influence his/her knowledge construction. How students take new information / knowledge and construct their understanding of things will depend on how teacher transact in classroom.

In this study, the classroom observation is conducted to know whether teacher create situation in classroom to link prior knowledge and experiences of students in teaching learning process.

Table: 3.1: Topics of learning linked with prior knowledge or past experience of learner

Sl.No	Name of the Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High school, Pissurlem, Sattari	Adequate
8	St. Sabastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

On whether teacher created situation that led students to reflect on his/her prior knowledge and experience. It is observed that in Govt. High School, Torse-Pedne teacher try to link student's prior knowledge to the topic taught in the classroom by linking pervious lesson, chapter, students experiences, skills are

found satisfactory. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion, that teachers created situation to link their prior knowledge and experiences with lesson.

The classroom observation in Our Lady of Rosary High School found that teacher create situation to link student's prior knowledge and experiences in teaching learning process. Teacher initiate by asking questions related to pervious chapter, lesson, students' knowledge, student's daily life style, experiences and skill. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. The discussion observed that teacher create situation to link their prior knowledge and experiences in teaching learning process.

The classroom observation in Balram- a day care school observed that teacher created situation to link student's prior knowledge and experiences by asking questions related to pervious lesson and citing examples in teaching learning process. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation to link their prior knowledge and experiences.

The classroom observation in Govt. High School, Advoi, Sattari observed that teacher create the situation to link student's prior knowledge and experiences in teaching learning process and found satisfactory. This observation is substantiated

by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation to link their prior knowledge with teaching learning process. Students are of the opinion that, whenever such situation is created their understanding of lesson is better.

The classroom observation in A.J.De Almeida High School observed that teacher create situation to link student's prior knowledge and experiences. The method is found satisfactory. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create to link their prior knowledge and experiences with teaching learning process.

The classroom observation in Mushtifund High School, Cujira observed that teacher create situation to link student's prior knowledge and experiences with classroom teaching learning process. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation during teaching learning process to link their prior knowledge and experiences.

The classroom observation in Govt. High school, Pissurlem, Sattari observed that teacher create adequate situation to link student's prior knowledge and experiences in teaching learning process. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation to link their prior knowledge with

teaching learning process.

The classroom observation in St. Sebastian High School, Loliem, Canacona observed that teachers create situation to link student's prior knowledge and experiences in teaching learning process. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation to link their prior knowledge and experiences in teaching learning process.

The classroom observation in Our Lady of Carmel high school, Curtorium observed that teacher create adequate situation to link student's prior knowledge and experiences in teaching learning process. This observation is substantiated by focus group discussion done with 10 heterogeneous group of students. It is learned from the discussion that teacher create situation to link their prior knowledge and experiences.

The above observation is substantiated by focus group discussion with teachers and students. Teachers usually initiate discussion with students about the topic they are going to learn. After understanding the response of students, teacher create a situation and initiate activities that allow students to reflects on his/her prior knowledge about the topic been taught. Question related to prevailing social and political issues and issues of general importance are usually asked to students to make linkage of the prior knowledge of the students.

The overall classroom observation on whether teacher create situation that lead

students to reflect on his /her prior knowledge and experiences, found that all the teachers create situation to link student's prior knowledge and experiences in teaching learning process. The observation found that teacher create situation to link their prior knowledge related to pervious lesson, chapter and their experiences, skills on the topic been taught during teaching learning process. Students also acknowledge that teachers raise questions related to pervious lessons and their knowledge and experiences on the lesson being taught. The overall observation is found satisfactory.

III.B: Activities in the class to arouse curiosity of students

Young children love to do exploration, they like doing new things, exploring their environment, devouring books and information, raise questions, searching for meaning, critical thinking and reasoning. Initiating right activity in classroom process will create curiosity among the students that will motivate them to learn. The classroom observation is conducted to know whether teacher conducted activities in classes to arouse curiosity of students. The table 5: 2 shows the classroom observation. The classroom observation done in 9 schools shows that teachers initiate activities and raise questions to arouse curiosity among the students during teaching learning process.

Table 3.2. Activities in the class to arouse curiosity of students

Sl.No	Name of the Schools	Remarks

1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Adequate
8	St. Sabastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

This observation is substantiated by focus group discussion with teachers. It is learned from the discussion that they incorporate different technique and method of learning such as group activity, discussion, jigsaw puzzle, practical (when applicable) and others to arouse the curiosity of students.

Arousing the curiosity of students in teaching learning process can make classroom lively and motivate students to learn. The technique of arousing student's curiosity with activities and questions was an important part of the training. This observation is substantiated by information collected from focus group discussion with students and teachers. Students' involvement in activities are found adequate. It is observed that activities such as exit cards, role play bell story etc are not integrated in teaching learning process. After discussion and interaction on the topic, group activity is initiate where students are divided into

groups. Each group are allotted with portion of the chapters to be studies and presentation and questions follows.

III.C: Contents of the lesson link with student's daily activities

Students learn better and comprehend difficult concepts when teaching learning is link to their daily life style. The classroom observation was conducted to know whether contents of the lesson are link with student's daily activities or life style during teaching learning process.

The classroom observation in Govt. High School, Torse-Pedne, Our Lady of Rosary High School, Balram-A day care school, Govt. High School, Advoi, Sattari, A.J.De. Almeida High School, Mushtifund High School, Cujira, Govt. High School, Pissurlem, Sattari, St. Sabastian High School, and Our Lady of Carmel High School found that teacher link content of the lesson with student's daily life and found adequate.

Table 3.3: Contents of the lesson link with student's daily activities

Sl.No	Name of Schools	Remarks
1	Govt. High School, Torse-Pendne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Inadequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate

7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sabastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

How to link content of the lesson with student's daily life is one of the contents in training program. Linking student's daily life style with the lesson taught in the school or classroom helps students to easily comprehend the concepts and content of the lesson. Therefore, classroom observation is conducted to know whether contents of the lesson are link with student's daily activities during teaching learning process. The study found that majority of the teachers adequately link student's lifestyle in teaching learning process. It is observed that teachers create situation by asking questions, give them examples to let students reflect on their daily life style. Discussion with students also revealed that teachers give examples and questions to link with their daily life.

III.D: Students participation in teaching learning process

Learning is an interactive process involving active participation from both teachers and students in classroom teaching learning process. Interactive classroom helps teachers to understand the behavior of students and identify the passive students and plan ways to encourage them to actively participate in the teaching learning process. Active participation of students in teaching learning process will help them to comprehend lessons taught in the classroom.

The classroom observation was conducted in 9 (nine) school to know whether

students participate in teaching learning process.

Table 3.4: Student's participation in teaching learning process

Sl.No	Name of Schools	Remarks
1	Govt. High School, Torse-Pedne	Inadequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Inadequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

It is observed that students participate in the form of answering the question raise by teachers, participate in collaborative work during teaching learning process in Govt. High School, Torse-Pedne. It is also observed that some students are reluctant to answer question and participant in activities. This observation is substantiated by focus group discussion done with 10 students. It is learned from the focus group discussion that they get involve in teaching learning process by asking their doubts, group discussion, debates and storytelling.

The classroom observation in Our Lady of Rosary High School found that students participate in teaching learning process. It is observed that student

adequately participates by raising questions, answering question raise by teacher, involved in group activities. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that they take part in teaching learning process by volunteering in group activities such as role play, group discussion, questioning for conceptual clarity etc.

The classroom observation conducted in Balram- a day care school found that students actively participate in teaching learning process. The participation of students in teaching learning process is found satisfactory. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that students occasionally involve in teaching learning process by asking their doubts and taking part in group activity.

The classroom observation in Govt. High School, Advoi, Sattari found students participating in teaching learning but some participates more than others. Students participate by involving themselves in reading passage from textbooks, answering question and raising question etc. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that very few students involve themselves in teaching learning process by raising their doubts, answering question and taking part in activities. It is also learned from the discussion that teacher explain their doubts and give them opportunity to raise more questions.

The classroom observation in A.J.De. Almeida High School found that few

students participating in teaching learning but it is also observed that some students are more vocal than the others. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that some students are more vocal in raising questions and participation. Some students are of the opinion that topic is not interesting.

The classroom observation in Mushtifund High School, Cujira found students actively participate in teaching learning process. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that they involve in teaching learning process by asking their doubts, take part in group activities such as role play, group discussion, presentation etc. student who frequently involve in classroom process are active learners.

The classroom observation in Govt. High School, Pissurlem, Sattari found that few students participate in teaching learning process. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that not all students actively participated in teaching learning process by asking their doubts and taking part in group activities. Some students are of the view that they don't want to speak in front of others while some said the topic is not interesting.

The classroom observation in St. Sebastian High School, Loliem, Canacona found that students participate in teaching learning process. This observation is substantiated by focus group discussion done with 10 students. It is learned from

the discussion that students occasionally involve themselves in teaching learning process by raising their doubts, answering question and taking part in group activity.

The classroom observation in Our Lady of Carmel high school, Curtorium found that students participate in teaching learning. Students participate by raising question, answering question raise by teacher, take part in activities etc. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that students involve in teaching learning process by asking their doubts and taking part in group activity, answer question raise by teacher.

The above observation is substantiated by information collected from focus group discussion with teachers and students. Majority of the teachers share that students participated actively in the classroom process and some teachers share that few students participate in teaching learning process. It is also learned that student's participation depends on topic of lesson, if topic is interesting students' participation is more. Topics like solar system, Home and surrounding i.e. Habitat, historical architecture etc. elicits a lot of participation from students. Further, they also revealed that discussion on themes and issues related with Panchayats, government institutions, culture (customs and practices) in society, population, women education etc. are of interesting topics for students. Debates and group discussion on these topics draws a better participation of students. Role

plays are also conducted to teach historical events and processes of political institutions. Teachers also share that they employ friendly approach and tried to be accessible as much as possible for their students. This approach makes students comfortable in discussing issues and participate more in classroom process.

Active participation of students in teaching learning process helps them to learn better, improve their critical and higher-level thinking skills. Participation can also help students learn from each other, increasing comprehension through cooperation, such activity improves relationships between students too. As per the classroom observation, student's participation is teaching learning process in all the school is found satisfactory. Students participate in teaching learning process by raising questions, answering question raise by teacher, sharing their existing knowledge on the tropic been discussed. Few concerns that are been observed is the motivation of passive students, moderation of activity and response to students' quarries need to be take care.

The objectives of participation are not to have every student participate in the same way or at the same rate. Instead, it is to create an environment in which all participants have the opportunity to learn and in which the students explore issues and ideas in-depth, from a variety of view point. Participation of students in classroom process also depends on individual like and dislike of the topic been taught, some student feels uncomfortable to speak in front of the group while some students love to speak in front of others.

III.E: Provides equal opportunities to every student

Providing equal opportunities and motivating every student to participate in classroom process is an important environment for learning. If only few students were given opportunities to participate by asking question and contributing to discussions, classroom teaching environment become lost opportunity for other students. The classroom observation on whether teachers give equal opportunities to every student in teaching learning process is found satisfactory. Table 5.6 shows the outcome to the analyses.

Table 3.5: Provides equal opportunities to every student

Sl.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Adequate
8	St. Sabastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

The classroom observation in Govt. High School, Torse-Pedne observed that teacher provide equal opportunity every student to raise questions and participate in activities. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them

equal opportunities to raise questions and participate in activities.

The classroom observation in Our Lady of Rosary High School observed that equal opportunity is provided to every student. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that their teacher gives them time to raise their doubts and equal opportunities are given to all of them to participate in activities during teaching learning process.

The classroom observation in Balram- a day care school observed that teacher provided equal opportunities to every student in the classroom. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal opportunities to raise questions and participate in activities during teaching learning process.

The classroom observation in Govt. High School, Advoi, Sattari observed that equal opportunities are provided to all the students by teacher. However, response from students is inadequate. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal opportunities to raise questions and participate in activities during teaching learning process.

The classroom observation in A.J.De. Almeida High School observed that teacher provide equal opportunities to students and the response from students is adequate. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal

opportunities to raise questions and participate in activities during teaching learning process.

The classroom observation in Mushtifund High School, Cujira observed that equal opportunity is provided to students and students response is also adequate. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal opportunities to raise questions and allow them participate in activities during teaching learning process.

The classroom observation in Govt. High School, Pissurlem, Sattari observed that teacher provided equal opportunities to every student to raise questions and shared their opinion on the lesson. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal opportunities to raise questions and allow them to participate in activities during teaching learning process.

The classroom observation in St. Sebastian High School, Loliem, Canacona observed that teacher provided equal opportunities to every student to raise questions, share their opinion and participate in activities. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher give them equal opportunities to raise questions and allow them to participate in activities during teaching learning process.

The classroom observation in Our Lady of Carmel high school, Curtorium found

that equal opportunities are given to students during teaching learning process. This observation is substantiated by focus group discussion done with 10 students. It is learned from the discussion that teacher do not give them equal opportunities to raise questions and allow them to participate in activities during teaching learning process.

In a democratic classroom, it is very important to allow every student raise question, share their idea and views on the topic/ lesson and participate in activities. Teachers as a moderator of the classroom should provide equal opportunity to every student. Such activity will encourage critical thinking among the student that will fulfill the objective of four major learning skills listed in the Framework for 21st century learning: Communication, collaboration, creativity and critical thinking. The study observed that every teacher/school under study provide equal opportunities to every student to raise questions and share their view and idea and participate in activities.

III.F: Innovative techniques integrated in teaching learning process

Teachers are innovators, they integrate new ideas in every lesson to make students learn better. Innovative techniques of reading, writing, activities (out door and classroom) motivate students to participate in teaching learning process. The classroom observation is conducted to know whether teachers practice innovative techniques in teaching learning process. Table 5.7 shows the outcome to the analyses.

The classroom observation done in following schools found that teachers integrate innovative ideas and techniques in teaching learning process; in Govt. High School, Torse-Pedne, Our Lady of Rosary High School, Balram-A day care school, Govt. High School, Advoi, Sattari, A.J.De. Almeida High School, Mushtifund High School, Cujira, Govt. High School, Pissurlem, Sattari, St. Sebastian High School, and Our Lady of Carmel High School, It is observed that innovative techniques such as teaching through smart boards, collaborative learning, teaching through technology (ICT), debate and discussion and dramatization methods were observed in classroom teaching learning process.

Table 3.6: Innovative techniques integrated in teaching learning process

Sl:No	Name of Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Adequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

Innovative techniques in teaching learning makes students to learn in different way, at the same time involve in classroom process. It generates interest among the students towards the subject / lesson. The study observed that every teacher under study significantly integrated innovative technique and ideas in teaching

learning process.

III.G: Cooperative learning

The cooperative learning techniques makes students to work together and promote joyful learning. Children also learn better when they are with friends. In cooperative learning every student has responsibilities and is held accountable in completion of the activity. Cooperative learning is fun, interactive, promote discussion, critical thinking and built relationship. The classroom observation was conducted to know whether teachers used cooperative learning techniques in teaching learning process. Table 5.8 shows the outcome of analysis.

Table 3.7: Cooperative learning

Sl.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High School, Loliem, Canacona	Inadequate
9	Our lady of Carmel high school, Curtorium	Adequate

The classroom observation done in Govt. High School, Torse-Pedne, Our Lady of Rosary High School, Govt. High School, Advoi, Sattari, A.J.De. Almeida High School, Mushtifund High School, Cujira and Our Lady of Carmel High School

observed that cooperative learning techniques are integrate by teachers during teaching learning process. Cooperative learning techniques such as group activity, jigsaw, peer work, assignment to solve problems and decision making are initiated by teachers in teaching learning process. The classroom observation done in Balram- a day care school, St. Sebastian High School and Govt. High School, Pissurlem, Sattari observed that teachers inadequately used cooperative techniques in teaching learning process. This observation is substantiated by information collected from focus group discussion with students and teachers.

Cooperative learning is an important teaching learning strategy where teachers engaged students in different groups and monitor student's activity. It is observed that majority of the teachers integrate cooperative learning techniques of leaning in teaching learning process and some teachers has some limitation in integrating cooperative learning techniques in teaching learning process.

III.H: Critical questions raised by teachers and students

To develop students critical thinking, it is important to raise critical questions to students and vice versa. Critical thinking and critical questions will make classroom environment lively as it leads to debates and discussion. The classroom observation was conducted to know whether critical questions are raised by teachers and students during teaching learning process. Table 5.9 shows the outcome of the classroom observation.

The classroom observation done in Our Lady of Rosary High School, A.J.De.

Almeida High School, Mushtifund High School, Cujira, and Our Lady of Carmel High School found that critical questions are raised by teachers and students during teaching learning process.

The classroom observation done in Govt. High School, Torse-Pedne, Govt. High School, Advoi, Sattari, Govt. High School, Pissurlem, Sattari, Balram- a day care school and St. Sebastian High School, shows some limitation no critical questions raised by teachers and students during teaching learning process.

Table 3.8: Critical questions are raised by teachers and students during teaching learning process

Sl.No	Name of Schools	Remarks
1	Govt. High School, Torse-Pedne	Inadequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Inadequate
5	A.J.De Almeida High school	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High school	Inadequate
9	Our lady of Carmel high school, Curtorium	Adequate

Critical thinking among the students can be created with the initiative of teachers putting forward critical ideas. If students think critically, critical question will arise from them. The study observed that majority of the classroom teaching learning process engaged in raise critical questions from both teachers and students and few classrooms have limitation on the raising of critical questions by

both teachers and students. Some critical question raise by students are 'why there is no living being in other planets?' why do we destroy natural vegetation to construct cities and towns?'.

III.I: Questions entertained by teachers anytime in teaching learning process

Students rising question during teaching learning process is an indication that students are motivated to learn more or student is not able to follow classroom teaching process. Therefore, it is imperative on the part of teachers to entertain question raise by students anytime. The classroom observation was conducted to know whether teachers entertained questions raised by students during teaching learning process. Table 5.10 shows the outcome of classroom observation.

Table 3.9: Questions entertained by teachers during teaching learning process

SL.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Inadequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Inadequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

The classroom observation in Govt. High School, Torse-Pedne found that insufficient questions were raised by students during teaching learning process.

This observation is substantiated by focus group discussion with students. It is learned from the discussion that don't raise questions during classroom process. Question was raised only after the class get over and teacher entertained their questions.

The classroom observation in Our Lady of Rosary High School found that questions raise by students during teaching learning process are adequately entertain by the teacher. This observation is substantiated by focus group discussion with students. It is learned from the discussion that teacher entertained their queries anytime during teaching learning process.

The classroom observation in Balram- a day care school found that students hardly raise question during teaching learning process. This observation is substantiated by focus group discussion with students. It is learned from the discussion that they raise questions only after the class get over and teacher entertained their queries.

The classroom observation in Govt. High School, Advoi, Sattari found that students rarely raise questions during teaching learning process. This observation is substantiated by focus group discussion with students. It is learned from the discussion that they raise question only after the lesson get over and teacher entertained their queries.

The classroom observation in A.J.De. Almeida High School found that students raise question and is answer/ response adequately by teacher. This observation is

substantiated by focus group discussion with students. It is learned from the discussion that teacher entertained their queries anytime during teaching learning process.

The classroom observation in Mushtifund High School, Cujira found that students raise questions during teaching learning process and teacher adequately entertain / response their question. This observation is substantiated by focus group discussion with students. It is learned from the discussion that they raise question anytime during classroom process and teacher entertained their queries adequately.

The classroom observation in Govt. High School, Pissurlem, Sattari found that students hardly raise questions during classroom process. Students usually raise question only after the lesson gets over and teacher response to their questions. Focus Group Discussion with students also revealed that they hardly raise question during classroom process.

The classroom observation in St. Sebastian High School, Loliem, Canacona found that student raise questions during classroom process and teacher adequately response to their questions. This observation is substantiated by focus group discussion with students. It is learned from the discussion that student raise questions during teaching learning process and teacher entertained their queries anytime.

The classroom observation in Our Lady of Carmel high school, Curtorium found

that students raise questions during classroom process and teacher response to their questions adequately. This observation is substantiated by focus group discussion with students. It is learned from the discussion that they raise question anytime during teaching learning process and their teacher entertained their queries.

Students rising questions during teaching learning process is an indication that students are sincerely learning and has the curiosity to learn more. As per the study, majority of the students raise questions during teaching learning process and teacher entertained their questions adequately. However, there are some limitations found in some schools. Discussion with students also revealed that teachers entertained their question during teaching learning process.

III.J: Clarification of concepts provided by teachers to students

Conceptual clarity in teaching learning makes students competent to face the challenges. Schooling is the time when a student should be clear of what is been taught in the class. Therefore, the classroom observation was conducted to know whether clarification of concepts is provided by teachers to students during teaching learning process. Table 3.10 shows the outcome of classroom observation.

Table 3.10: Clarification of concepts provided by teachers to students

Sl.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Inadequate

2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our Lady of Carmel high school, Curtorium	Adequate

The classroom observation done in Govt. High School, Advoi, Sattar, Mushtifund High School, Our Lady of Rosary High School, Cujira, A.J.De. Almeida High School St. Sebastian High School, Loliem, Canacona and Our Lady of Carmel high school, Curtorium found that clarification provided by teachers to students is adequate. However, the classroom observation done in Govt. High School, Torse-Pedne, Balram- a day care school, and Govt. High School, Pissurlem, Sattari found that clarification provided by teachers to students is inadequate.

This observation is substantiated by information collected from focus group discussion with students. Majority of the students are of the opinion that their teachers provided conceptual clarification during teaching learning process.

Providing conceptual clarity to students is an important part of teaching learning process. Unless a student is clear on the concept, his/her learning outcome will show unsatisfactory result. The study observed that majority of the teachers give satisfactory conceptual clarity to students and few teachers give inadequate conceptual clarity. Majority of the students are of the opinion that their teachers

provided concept clarification anytime during teaching learning process and they are satisfied.

III.K: Regular evaluation done during teaching learning process by teacher

Evaluation is an integral part of teaching learning, as it determines whether the aims or objective of teaching certain lesson is achieved or not. Therefore, the classroom observation was conducted to know whether regular evaluation is done during teaching learning process by teacher or no. Table 3.11 shows the outcome of classroom observation.

Table 3.11: Regular evaluation done during teaching learning process by teacher

Sl.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Inadequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

The classroom observation done in Our lady of Carmel high school, Curtorium, St. Sebastian High School, Loliem, Canacona, Govt. High School, Torse-Pedne,

Our Lady of Rosary High School, Govt. High School, Advoi, Sattari, A.J.De. Almeida High School, Mushtifund High School, Cujira found that regular evaluation done during teaching learning process by teacher. Summative and formative assessments are taken and done at different levels of learning. Unit test, half term and annual exams are conducted in all the schools. However, the classroom observation done in Govt. High School, Pissurlem, Sattari, and Balram- a day care school found that regular evaluation is inadequate during teaching learning process by teacher. This observation is substantiated by information collected from focus group discussion with teachers. Most of the teachers responded that evaluation is done in a continuous and comprehensive manner. Summative and formative assessments are done at different levels of learning.

Regular evaluation of students during teaching learning process is an important activity in teaching learning process. The study observed that majority of teachers regularly evaluate students learning during teaching learning process. It is observed that teachers continuously engaged students in teaching learning process by giving them task, asking questions, activities etc. and few teachers do not regularly evaluate students learning during teaching learning process. Majority of the teachers evaluated their students in continuous and comprehensive manner.

III.L: Evaluation strategies used in classroom

The classroom observation was conducted in nine selected schools to know

whether evaluation strategies are used in classroom during teaching learning process. The evaluation strategies used in classroom and regular evaluation during teaching learning process are observed and evaluate together. Table 5.13 shows the outcomes of classroom observation.

The classroom observation done in Govt. High School, Torse-Pedne, Balram- a day care school, Govt. High School, Advoi, Sattari, St. Sebastian High School, Loliem, Canacona and Our lady of Carmel high school, Curtorium found that formative and summative evaluation strategies are used in teaching learning process in inadequate. However, the classroom observation done in Our Lady of Rosary High School, A.J.De. Almeida High School, Mushtifund High School, Cujira and Govt. High School, Pissurlem, Sattari found that evaluation strategies during teaching learning process is adequate.

Table 3.12: Evaluation strategies used in classroom

Sl.No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Inadequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Inadequate
4	Govt. High School, Advoi, Sattari	Inadequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Adequate
8	St. Sebastian High School, Loliem, Canacona	Inadequate
9	Our lady of Carmel high school, Curtorium	Inadequate

This observation is substantiated by information collected from focus group discussion. Most of the teacher's evaluation their students in continuous and comprehensive manner. Evaluation strategies like unit test, half term and annual exams, project work, notebook checking are adopted to student's performance. Student's behavior and habits in classrooms are also observed and included in the cumulative assessment of students.

Regular evaluation and evaluation strategies adopted to evaluate students learning is an important aspect of reaching learning process. Evaluation during teaching learning process help teachers to quickly understand whether his/her students is able to comprehend teaching. The study observed that majority of teachers use evaluation strategies in classroom teaching learning process and few teacher's evaluation strategies in classroom teaching learning process is found insufficient. Evaluation strategies like unit test, half term and annual exams, project work, notebook checking are adopted to evaluated student's performance. Student's behavior and habits in classrooms are also observed and included in the cumulative assessment of students.

III.M: Project/ Assignment based on collaborative work

The collaborative work will develop higher level thinking, increase self-esteem and responsibility among the students. The classroom observation was conducted to know whether project/ assignment based on collaborative work are given to students during teaching learning process. Table 5.14 shows the outcome of

classroom observation

Table 3.13: Project/ Assignment based on collaborative work

Sl. No	Schools	Remarks
1	Govt. High School, Torse-Pedne	Adequate
2	Our Lady of Rosary High School	Adequate
3	Balram- a day care school	Adequate
4	Govt. High School, Advoi, Sattari	Adequate
5	A.J.De. Almeida High School	Adequate
6	Mushtifund High School, Cujira	Adequate
7	Govt. High School, Pissurlem, Sattari	Adequate
8	St. Sebastian High School, Loliem, Canacona	Adequate
9	Our lady of Carmel high school, Curtorium	Adequate

The classroom observation and interaction done in Govt. High School, Torse-Pendne, Govt. High School, Advoi, Sattari, A.J.De. Almeida High School, St. Sebastian High School, Loliem, Canacona and Our lady of Carmel high school, Curtorium, Mushtifund High School, Cujira, Balram- a day care school and Our Lady of Rosary High School found that teachers give adequate project and assignment based on collaborative work. The study observed that majority of teachers give project and assignment based on collaborative work during teaching learning process and few teachers do give project or assignment based on collaborative work during teaching learning process. It is found that teachers give activity (individual and group) and presentation during teaching learning process. According to some teachers, project and assignment are time consuming activity

which is best for homework. So, it is not feasible during teaching learning process. It is difficult to assigned collaborative work to students outside the classroom environment too.

CHAPTER IV

IMPLEMENTATION IN SCHOOLS: INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN TEACHING LEARNING PROCESSES

Twenty first century is witnessing fast development in the field of Information and Communication Technology (ICT). ICT has attracted the attention of academia and has make its present felt in education system. In school education too, ICT has become an integral part of classroom teaching learning. As a teacher it is very important to identify and understand the usefulness of various ICT tools and components available at our reach. ICT facilitate teachers and students to immediately access up-to-date information which our textbook cannot do. Therefore, if used appropriately, can significantly benefits teaching learning process.

Keeping the increasing significance of ICT for teaching learning process in mind, one of the major themes of training conducted for teacher teaching Social Science in Goa was ICT and its integration. Different components of ICT that could be useful for learning Social Science were discussed and the integration of it in teaching learning of social science was deliberated upon and hand on experience were also carried out during the training programme. In order to examine the implementation of this aspect by teachers who have attended the training programmes in SCERT Goa conducted by Regional Institute of Education-

NCERT Bhopal, three sets of tools were used for collecting data – Teacher Interview Schedule, Classroom Observation and Focus Group Discussion with students. These tools were used to find out whether ICT integration takes place in classrooms or not and the components of ICT used.

IV.A: Teachers integrating ICT in Classroom

Information and Communication Technology (ICT) in education has made difficult concept easier to understand or comprehend. Table 5.1. shows the scenario of ICT use by teachers.

Table 4.1. ICT integration in classrooms

Number and percentage of teachers integrating ICT in classroom teaching learning process	Number and percentage of teachers not integrating ICT in classroom teaching learning process	Total number of teachers
9(100%)	0(0)	9(100%)

Teacher's interview and Focus Group Discussion reveals that every (100 percent) of the teachers under study integrated ICT tools and components in their classroom teaching learning process. However, an analysis done from availability of infrastructure in school show that most of the school doesn't have internet connection and Interactive White Board which are essential part of ICT.

IV.B: Components of ICT integrated in Classrooms teaching learning process

Information and Communications Technology (ICT) has become an important part of teaching learning process. Proper implementation of ICT can impact

students learning outcome when a teacher is digitally literate and understand how to integrated it in teaching learning process. In this section, different components are identified based on the training programme conducted in Social Science and its presence in social science classroom and integration in its learning is examined. The identified ICT components are Pictures/Images, Videos/ clip or abstract of lengthy films, Newspaper, Activity with chart, Tape Recorder, live television programme, Recorded Television Programme, Mobile applications (WhatsApp, Twitter etc.), websites, Radio programmes (Live and Recorded), Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom, MS Excel Sheet. Any project/assignment that involves the use of ICT components are also studied in this section. Data collected in this regard are analyzed from two perspectives - item wise and school wise. Table IV.2 shows the overall picture of ICT and its integration in Schools.

Table 4.2. ICT tools and components integrated in teaching learning process

School / ICT	S1	S2	S3	S4	S5	S6	S7	S8	S9	Total ✓	%	Total ×	%
ICT1	✓	✓	✓	×	✓	✓	×	×	×	5	56	4	44
ICT2	✓	×	✓	×	✓	✓	×	✓	✓	6	67	3	33
ICT3	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT4	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	100	0	0
ICT5	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT6	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT7	✓	×	×	✓	✓	✓	×	✓	✓	6	67	3	33
ICT8	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	100	0	0
ICT9	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT10	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	100	0	0

ICT11	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT12	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT13	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT14	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT15	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT16	×	×	×	×	×	×	×	×	×	0	0	9	100
ICT17	×	×	×	×	×	×	×	×	×	0	0	9	100
A	(6) 35%	(4) 24%	(5) 29%	(4) 24%	(6) 35%	(6) 35%	(3) 18%	(5) 29%	(5) 29%				
B	(11) 65%	(13) 64%	(12) 71%	(13) 64%	(11) 65%	(11) 65%	(14) 83%	(12) 71%	(12) 71%				
C	17	17	17	17	17	17	17	17	17				

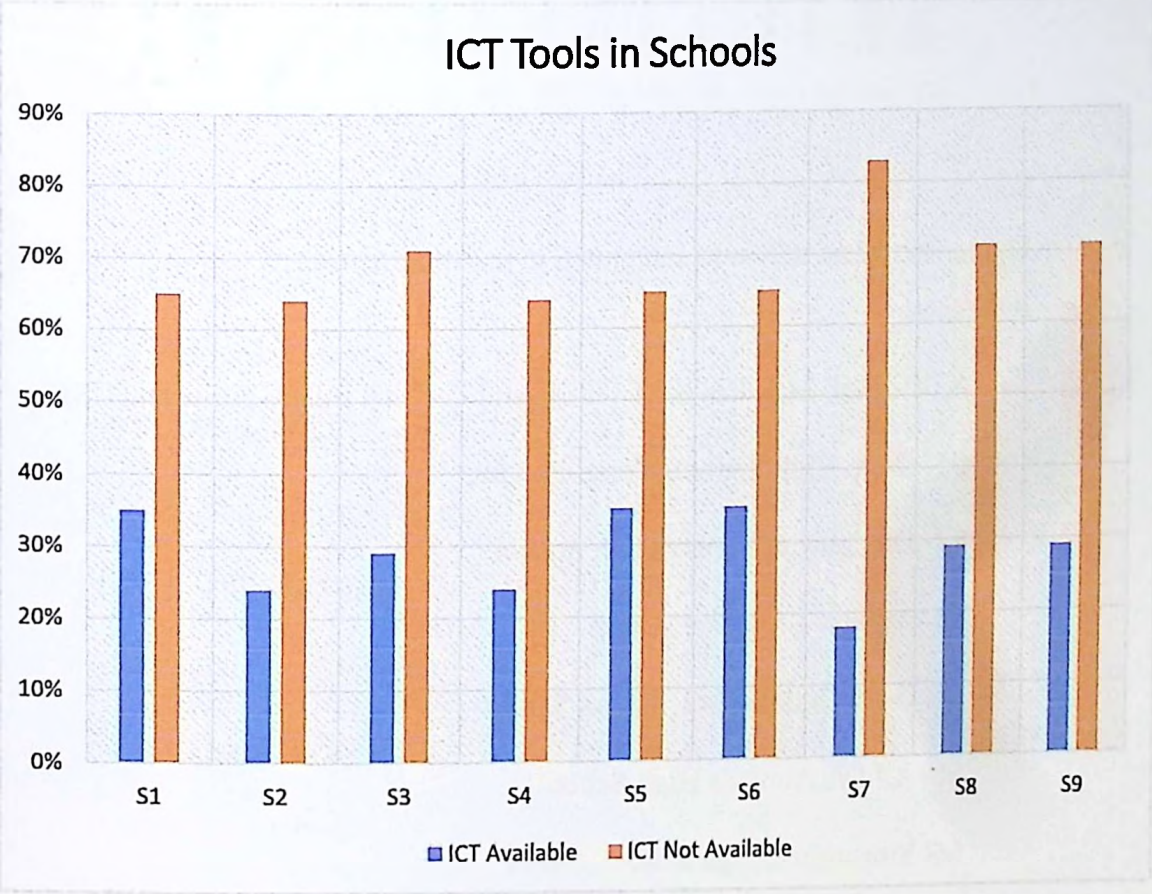


Figure 4.1 ICT tools in schools

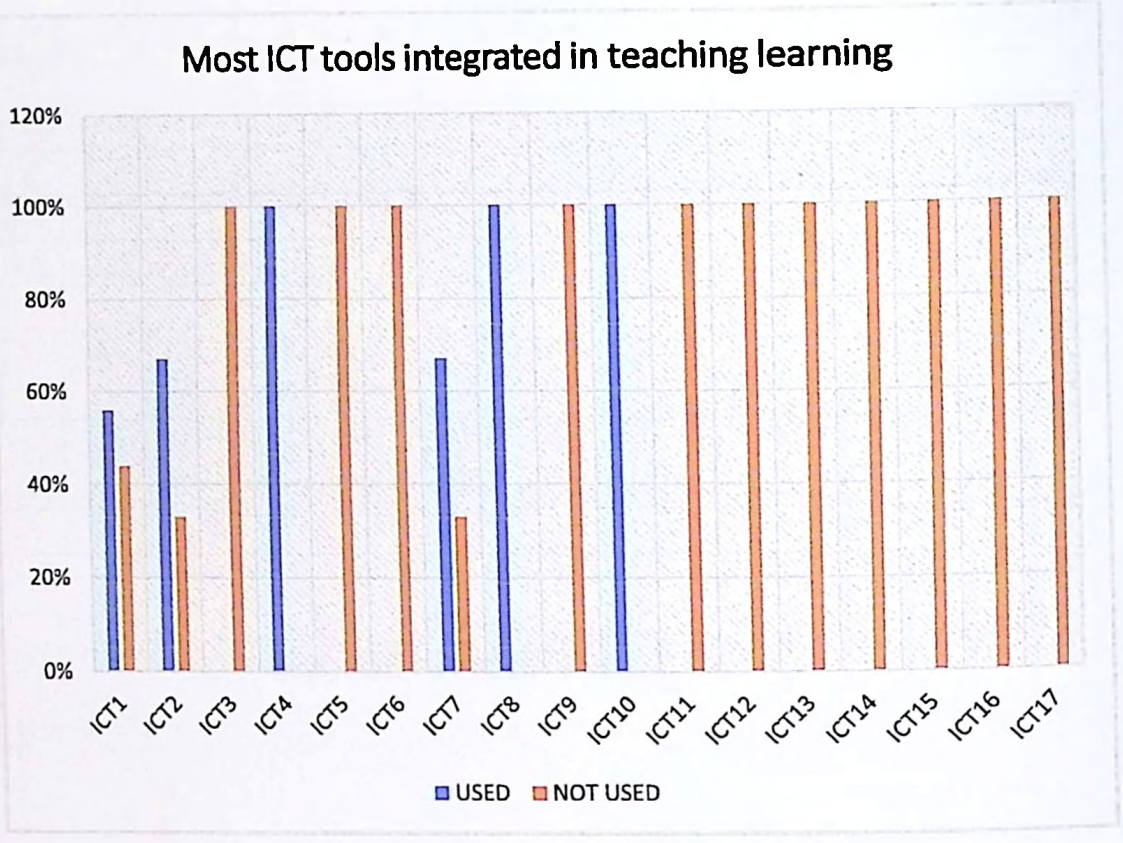


Figure: 4.2: Most ICT tools integrated in teaching learning

Reference:

- X (Crossed) indicates NOT USED and □ (Tick mark) indicates USED

S1- Govt. High School, Torse-Pendne

S2- Our Lady of Rosary High School

S3- Balram- a day care school

S4- Govt. High School, Advoi, Sattari

S5- A.J.De. Almeida High School

S6- Mushtifund High School, Cujira

S7- Govt. High School, Pissurlem, Sattari

S8- St. Sebastian High School, Loliem, Canacona

S9- Our lady of Carmel high school, Curtorium

A- Number and percentage of total ICT component used

B- Number and percentage of total ICT component not used

C- Total number of ICT components

ICT1- Pictures/Images

ICT2- Videos/ clip or abstract of lengthy films

ICT3- Newspaper

ICT4- Activity with chart

ICT5- Tape Recorder

ICT6- Live television programme

ICT7- Recorded Television Programme

ICT8- Mobile applications

ICT9- Websites

ICT10- Radio programmes

ICT11- Google Earth

ICT12- Google Map

ICT13- Solar System 3D

ICT14- Star Chart

ICT15- Sun locator lite

ICT16- Google Classroom

ICT17- MS Excel Sheet

IV.C: Item wise analysis

Seventeen items of ICT tools and components identified are examine in detail here. To what extent these items are used and integrated in classroom process are shown in this section.

1. Pictures/Images: Table 4.2 shows that in the teaching learning process of Social Sciences, about 56 percent of teachers used and integrated these items of ICT components in their classroom and about 44 percent of the teachers do not integrated this ICT component in their class process.

2. Videos/ clip or abstract of lengthy films: About 67 percent of the teachers used and integrated ICT tools listed for study in their classroom teaching learning process and about 33 percent teachers do not integrated ICT tools listed in teaching learning process.

3. Newspaper: None of the teachers reported of using print media in teaching learning process. This resource can be very useful in teaching students on many themes included in Social Science from contemporary perspectives.

4. Activity with chart: every teacher under this research project used chart or conduct chart - based activity in their classroom transaction.

5. Tape Recorder: none of the teachers use this resource in their classroom.

6. Live television programme: None of the teacher integrated live television programme for their classes.

7. Recorded Television Programme: about 67 percent of the teachers integrated this ICT component in their classroom teaching.

8. Mobile applications (WhatsApp, Twitter etc.): Mobile apps can enhance and assist the quality and extent of information dissemination among learners. Every teacher uses mobile applications to support their classroom teaching learning process.

9. Websites: None of the teachers take the help of website in teaching learning process.

10. Radio programmes (Live and Recorded): Radio programmes are used occasionally to air important programmes. and talks of influential personalities. The study found every teacher occasionally use Radio in teaching learning process.

11. Google Earth: This is a good resource for teaching geography which unfortunately is not used by any teacher.

12. Google Map: This item of ICT resources is not use by any teacher / schools under study.

13. Solar System 3D: The use of this model is minimum among teachers teaching Social Science. However, it is found that none of the teacher use this ICT app.

14. Star Chart: This ICT components is not used by any teacher in their classroom teaching learning process.

15. Sun locator lite: None of the teacher used this in teaching Social Sciences.

16. Google Classroom: This application is also not used by any teachers in their classroom.

17. MS Excel Sheet: This particular item is very useful in organizing data. However, none of the teachers use this.

Majority of the ICT components namely Newspaper, Chart, Tape Recorder, Radio programme, Google Earth, Google Map, Star Chart, Sun Locator Lite, Google Classroom and Microsoft Excel are not use and integrated by Social Science teachers in classroom process. Item-wise analysis of the 17 ICT components identified shows that only 6 (35%) items i.e. Video clips, Recorded Television programmes, Mobile applications, Image/pictures, and radio programme are found to be used and integrated in the classroom process. It was found that 65 percent of teachers used these components of ICT.

IV.D: School-wise analysis of ICT integration in classroom process

This section discusses the use and integration of various ICT components in school-wise. Table V.2 shows the detail school-wise performance in terms of ICT use and integration. The school-wise analysis is presented as below:

1. Govt. High School, Torse-Pedne: In this School, 35 percent of the ICT components such as pictures/images, video or clip, activity chart, recoded television programme, mobile application and radio programme are use in teaching learning process. About 65 percent of the ICT tools and components listed for examination are not used in teaching social sciences. Focus group

Discussion with students substantiate this finding stating that teachers used ICT components and tools like television, mobile phone etc in teaching learning process. Mobile phone application is used occasionally to show video clippings and short videos related to lesson. Mobile phone application such as Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite and Google Classroom and other ICT components and tools viz., MS Excel sheet, radio programmes, websites, newspaper, tape recorder are not used in teaching learning process.

2. Our Lady of Rosary High School: It is observed that 24% of the ICT components and tools listed such as pictures/images, Activity chart, mobile application and radio programme for study are used in social science classrooms. About 76 percent of ICT components identified to be examined are not integrated in teaching learning of social sciences. The remaining ICT components such as Videos/ clip or abstract of lengthy films, Newspaper, Tape Recorder, Recorded Television Programme, Radio programmes (Live and Recorded), Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom and MS Excel Sheet are not used in teaching and learning social sciences.
3. Balram- a day care school: It is learned from the classroom observation that teacher integrate ICT components and tools. About 29 percent of ICT components listed out for the study such as Pictures/Images, Videos/ clip or abstract of lengthy films, activity chart, mobile applications, and radio

programme were found to be used in teaching learning process of social sciences. Mobile phone is occasionally used to show video clippings and short videos related to lesson. However, majority of ICT components (Live television programmes, Newspaper, Tape Recorder, Recorded Television Programme, Radio programmes (Live and Recorded), Google Earth, Google Map, Star Chart, sun locator lite, Google Classroom and MS Excel Sheet) are not used in classroom teaching.

4. Govt. High School, Advoi, Sattari: The classroom observation revealed that teacher integrated about 24 percent of the ICT tools listed for study. Tools such as activity chart, recorded television programme, mobile application and radio programme. Majority (76%) of ICT component and tools like Newspaper, Tape Recorder, Google Earth, Google Map, Star Chart, sun locator lite, Google Classroom, MS Excel Sheet etc are not integrated in teaching learning process. Focus Group Discussion substantiate this finding. These ICT's are used occasionally to show video clippings and short videos related to lesson.
5. A.J.De. Almeida High School: It is observed that about 35 percent of the ICT and its components such as, picture and images, video/ clip or abstract pf lengthy films, activity chart, recorded television programme, mobile application and radio programme listed for study are integrated in classroom teaching learning process. About 65 percent of the ICT tools listed for study such as, Newspaper, Tape Recorder, Google Earth, Google Map, Star Chart, sun locator lite, Google

Classroom, MS Excel Sheet etc are not integrated in teaching learning process. ICT based project and homework are also not assign to students in this School.

6. Mushtifund High School, Cujira: The classroom observation found that about 35 percent of the ICT tools such as picture and images, videos/ clips or abstract of lengthy films, activity chart, recorded television programme, mobile application and radio programme listed for study are integrated in teaching learning process. Focus Group Discussion with students also revealed that teachers integrated ICT tools in teaching learning process occasionally. However, no ICT base project and assignment are given them. About 65 percent of the ICT tool such Newspaper, Activity with chart, Tape Recorder, Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom MS Excel Sheet etc listed for study are not integrated in teaching learning process.
7. Govt. High School, Pissurlem, Sattari: The classroom observation found that about 18 percent of the ICT tools such as activity chart, mobile application and radio programme listed for study are integrated in teaching learning process. About 83 percent of the ICT tool such Newspaper, Activity with chart, Tape Recorder, Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom MS Excel Sheet etc listed for study are not integrated in teaching learning process. This finding is substantiated by focus group discussion with students. No ICT base project and assignments or homework's are also

assigned to students.

8. St. Sebastian High School, Loliem, Canacona: It is observed that about 29% of the ICT components such as videos/ clip or abstract of lengthy films, activity chart, recorded television programme, mobile application and radio programme listed for study are integrated in teaching learning process. About 71 percent of ICT tools such as Picture/Images, Newspaper, Tape Recorder, Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom, MS Excel Sheet etc are not integrated in teaching learning process. According to student, ICT tools are occasionally integrated in teaching learning process. However, no ICT base project and assignments or homework's are assigned to students.
9. Our Lady of Carmel high school, Curtorium: the classroom observation shows that about 29% of the ICT tools such as activity chart, videos/ clip or abstract of lengthy films, recorded television programme, mobile application and radio programme listed for study is found integrated in teaching learning process. However, components of ICT such as Picture/Images, Newspaper, Tape Recorder, Google Earth, Google Map, Solar System 3D, Star Chart, sun locator lite, Google Classroom, MS Excel Sheet etc are not integrated in teaching learning of social science. Focus Group Discussion with students also revealed that their Social Science teachers used ICT tools in teaching learning process occasionally. No ICT base project and assignments or homework's are assigned

to them.

IV.E. Overall Finding

The study found that though majority of the school witnessed integration of ICT and its components in their social science classroom, the level of integration is very low. Item- wise analysis shows that integration of ICT components in teaching learning process is very low in school. Only 6 (35%) items i.e. Picture and images, videos and clips or abstract of lengthy films, activity chart, recorded television programme, mobile application, and radio programme are found to be used and integrated in the classroom process while majority of them (65 %) are not use and integrated in teaching learning process. Of the six ICT components integrated in classroom process, activity chart, mobile application and radio programme were used the most by the teachers for teaching Social Sciences. It was found that majority of the teachers used these components of ICT. This is followed by pictures and images, video and clips or abstract of lengthy films and recorded television programme are used and integrated by few teachers in teaching learning process.

School-wise analysis on integration of ICT components in teaching learning of social science show that all the schools under study performed badly in terms of integrating ICT components in their classroom process. None of the school under study could use and integrated all the ICT tools listed. Out of nine school only three school could able to integrate 35 percent of ICT tool listed for study. The

study also found that only 3 out of 17 ICT tools were use and integrated by all the teachers under study. There are few teachers who could not regularly integrate make ICT tools/components in teaching social science due to the unavailability of facilities in their School. Even in Schools where some ICT components are available, teachers stated that it is inadequate in terms of quantity and quality. In many Schools, only one system/Computer is present so effective integration is not possible.

CHAPTER V

FINDINGS AND SUGGESTIONS

V.A: Infrastructure availability

School buildings, classrooms, playgrounds and libraries are the important components of school infrastructure. The observation of basic school infrastructure under study area shows a mix result. The study shows that every school have playground, sports and games materials, electricity connection, safe drinking water facilities, Midday Meal Scheme, separate toilet for girls, boys and teachers, computer, and projector. However, all the school under study doesn't have infrastructure such as, hostel facilities, canteen, security camera, biometric attendance system and Medicare. About 88 percent of the school have gardening facilities, library, and sufficient social science teacher. About 77.7 percent of the school doesn't have social science lab and interactive white board and 22.3 percent of the school doesn't have internet connection.

School wise analysis of availability of Infrastructure shows that Our Lady of Rosary High school and Mushtifund High school have about 75 percent of the basic infrastructure require in schools are available. It is followed by A.J.De, Almeida High school and Our Lady of Carmel high school having 65 percent of infrastructure listed for study and Govt. High school Advoi, Govt. High school Torse-Pedne, Govt. High school Pissurlem and St. Sebastian high school and Balram day care school have about 60 percent of the infrastructure listed for study.

V.B: ICT integration in classroom process

The study found that every teacher integrated ICT tools and components listed for studies in their classroom teaching learning process. However, the level of ICT tools used and integrate in classroom teaching process is unsatisfactory. The study revealed that most of the school does not have internet connection and interactive white board which are important ICT component to smoothly integrate ICT in teaching learning process. Out of 17 components and tools listed for studies, only 3 ICT components and tools were used and integrated by all the teacher. ICT tools and components such as Newspaper, Tape Recorder, Live television programme, Websites, Google Earth, Google Map, Solar System 3D, Star Chart, Sun locator lite and Google Classroom are not use and integrated in teaching learning process. School wise analysis chows that Govt. High School, Torse-Pedne, A.J.De. Almeida High School and Mushtifund High School, Cujira integrate about 35 percent of the ICT listed for study. Balram- a day care school, St. Sebastian High School, Loliem, Canacona and Our lady of Carmel high school, Curtorium integrated about 29 percent, Our Lady of Rosary High School and Govt. High School, Advoi, Sattari integrate about 24 percent and Govt. High School, Pissurlem, Sattari integrate about 18 percent of the ICT listed for study.

There are few teachers who could not regularly integrate ICT components in teaching social science due to the unavailability of supporting infrastructure in their School. Even in Schools where some ICT components are available, teachers stated that it is inadequate in terms of quantity and quality. In many Schools, only

one system/Computer is present so effective integration is not possible.

V.C: Implementation of Constructivist pedagogy in learning social sciences

The study found that teachers create situation to link student's prior knowledge and experiences in teaching learning process. Teacher create situation to link student's prior knowledge related to pervious lesson, chapter and their experiences and skills on the topic been taught. According to students, teachers ask questions related to pervious lesson and their knowledge and experiences on the lesson been taught. According to teachers, they usually initiated questioning to create a situation to link students' prior knowledge and experiences with teaching learning. Question relating with the prevailing social and political issues and issues of general importance are usually asked to students to make linkage of the prior knowledge of the students. The overall observation is found satisfactory.

Arousing the curiosity of students in teaching learning process make classroom lively and interactive. The classroom observation found that every teacher adequately create situation in classroom to arouse curiosity among the student's This observation is substantiated by information collected from focus group discussion with students and teachers. According to teachers they incorporate different technique and method of learning such as group activity, discussion, jigsaw puzzle, practical (when applicable) to arouse curiosity of students.

The study observed that every teacher used adequate learning materials and teaching aids locally available and found in immediate surroundings in teaching learning process. It is observed that most of the schools have reading materials, 2D

wall maps (India and world), globe, activity charts, locally made models, and pictures of historical great people.

Linking student's daily life style with the lesson taught in the school or classroom helps students to easily comprehend the concepts and content of the lesson. The study found that every teacher adequately links student's daily lifestyle in teaching learning process. It is observed that teachers create situation by asking questions, give them examples to let students reflect on their daily life style. Discussion with students also revealed that teachers give examples and questions to link their daily life style with classroom teaching learning process.

It is also found that students participation depends on topic of lesson, if topic is interesting students' participation is more. Debates and group discussion draw better participation of students. Role plays are also conducted to teach historical events and processes of political institutions. It is also learned that teachers apply friendly approach and make themselves accessible to students. The concerns that have been observed in the study is the level of motivation towards passive students, moderation of activities by teachers and response to students' quarries by teachers need to be take care.

Active participation of students in teaching learning process helps them to learn better, improve their critical and higher-level thinking skills. Participation can also help students learn from each other, increasing comprehension ability and improve relationships between students. As per the study, student's participation is teaching learning process in all the school is found satisfactory. Students participate

in teaching learning process by raising questions, sharing their knowledge on the tropic been discussed. This observation is substantiated by information collected from focus group discussion with teachers. Majority of the teachers share that students participated actively in the classroom process.

The study observed that teachers provide equal opportunities to students to ask questions and share their view and idea and participate in activities.

Innovative techniques in teaching learning process make students to learn in different ways and motivate them to participated classroom process. The study observed that teachers significantly used innovative technique and ideas in teaching learning process. Innovative ideas and techniques like teaching through smart boards, collaborative learning, teaching through technology (ICT) etc were observed in classroom teaching learning process.

Cooperative learning is an important teaching learning strategy where teachers engaged students in different groups and monitor their activity. It is observed that teachers integrate cooperative learning techniques in teaching learning process. Cooperative learning techniques like group activity, jigsaw, peer review work, assignment to solve problems and decision making are found during classroom observation.

Critical thinking by students is an important aspect of learning. If students thinking critically, critical question will arise from them. The study observed that classroom teaching learning process engaged in asking critical questions from both teachers. Students rising questions during teaching learning process is an indication that

student has the curiosity to learn more or students has a doubt. As per the study, teachers entertained questions raised by students anytime during teaching learning process. Majority of the teachers entertained questions raised by students during teaching learning process. Discussion with students also revealed that teachers entertained their question during teaching learning process.

The study observed that teachers give satisfactory conceptual clarity to students. The study also observed that some teachers provide adequate conceptual clarification to students when they raise doubts during teaching learning process. However, some teachers could not give a satisfactory explanation on concept. Majority of the students are of the opinion that their teachers provided concept clarification anytime during teaching learning process and they are satisfied.

Regular evaluation of students during teaching learning process is an important activity in teaching learning process. The study observed that teachers regularly evaluate students learning during teaching learning process. It is observed that teachers continuously engaged students in teaching learning process by giving them task, asking questions, activities etc. Majority of the teachers evaluated their students in continuous and comprehensive manner.

Evaluation during teaching learning process help teachers to quickly understand whether his/her students is able to comprehend teaching. The study observed that teachers use evaluation strategies in classroom teaching learning process. Evaluation strategies like unit test, half term and annual exams, project work, notebook checking are adopted to evaluated student's performance. Student's

behavior and habits in classrooms are also observed and included in the cumulative assessment of students.

The study observed that teachers give project and assignment based on collaborative work during teaching learning process. It is found that teachers give activity (individual and group) and presentation during teaching learning process. Majority of the teachers stated that, project and assignment are time consuming activity which is best for homework. So, it is not feasible during teaching learning process. It is difficult to assigned collaborative work to students outside the classroom environment too.

The overall analysis of classroom observation suggest that constructivist pedagogy used in classroom by teachers is found unsatisfactory because majority of the teachers do not follow constructivist approach in teaching learning process. According to Audrey Gray, the characteristics of a constructivist classroom are; the learners are actively involved, the environment is democratic, the activities are interactive and student-centered and the teacher facilitates a process of learning in which students are encouraged to be responsible and autonomous. Constructivism is not defined by a set of activities and strategies. Constructivism is a philosophy that beliefs: that students constructed their own meaning and knowledge, that students are responsible and responsive in their own learning. The core concept and idea of constructivism is found missing in classroom teaching learning process.

V.D: Suggestion

21st century classroom teaching is fat shifting from teacher centric to students

centric. Teacher centered learning methods have been practiced for many decades where students play the passive or secondary role and teachers plan out lesson and set a defined path to what should learn and produce. Today's teaching learning demands student centric where students actively take part in teaching learning process and teachers play the role of guide, monitor and facilitator to see how students construct meanings and knowledge. the following suggestion has derived from the study;

- School teacher's professional development need to be strengthened to develop competency among the teacher.
- Schools under study needs state of the art infrastructure
- School needs to develop social science laboratory to enrich social science learning.
- ICT base training for teachers to improve their competency in handling ICT facilities.
- Setup smart classroom to initiate smart learning
- Emphasis on students learning outcome rather than rushing to complete syllabus
- Emphasis on child centric learning activity
- Regular training of teacher s on pedagogy

CONCLUSION

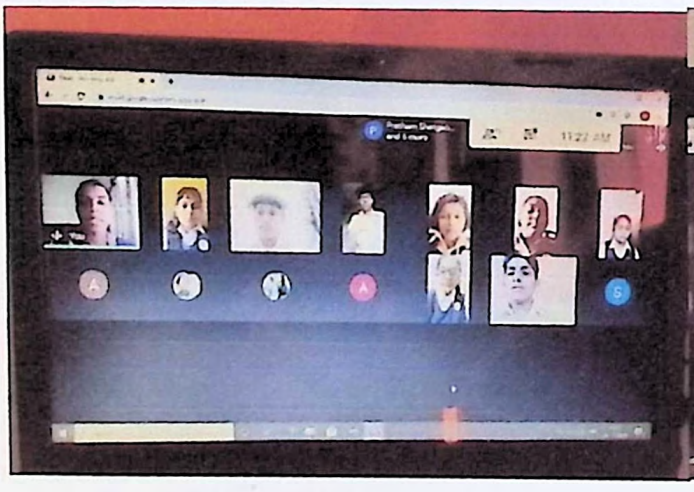
The study to assess the status of implementation of social science pedagogical training programme in classroom processes in the state of Goa is to understand whether the objective of training programme imparted in SCERT Goa conducted by Regional Institute of Education- NCERT Bhopal has successfully implemented in classroom teaching learning process. The study observed positivity as well as some short coming in implementation the objectives of training in classroom teaching learning process. School infrastructure is an important aspect in school education. School buildings, classrooms, playgrounds, libraries, laboratories and smart classroom plays an important role in students learning outcome. It is observed that most of the schools have basic infrastructure.

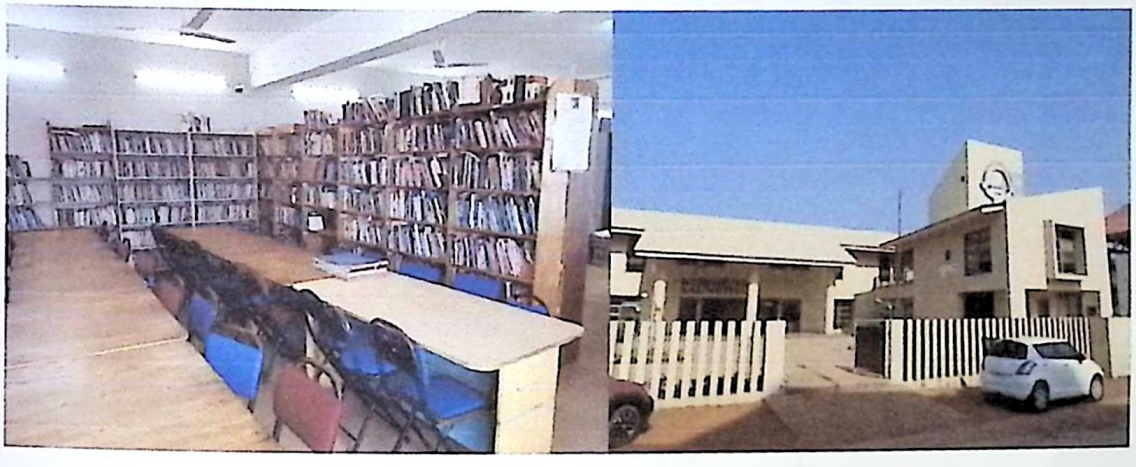
The study found that majority of the school integrated ICT in teaching learning process, but the frequency and usage of implementation is found inadequate. For smooth integration of ICT components and tools state of art infrastructure is required. Despite of the short comings in ICT infrastructure facilities, many teachers managed to integrated ICT in classroom teaching learning process.

The overall analysis of classroom observation suggest that constructivist pedagogy integrated in classroom teaching learning process by teachers is found adequate. According to Audrey Gray, the characteristics of a constructivist classroom are; the learners are actively involved, the environment is democratic, the activities are interactive and student-centered and the teacher facilitates a process of learning in which students are encouraged to be responsible and autonomous. Teachers must know that constructivism is not only about activities and strategies. They must

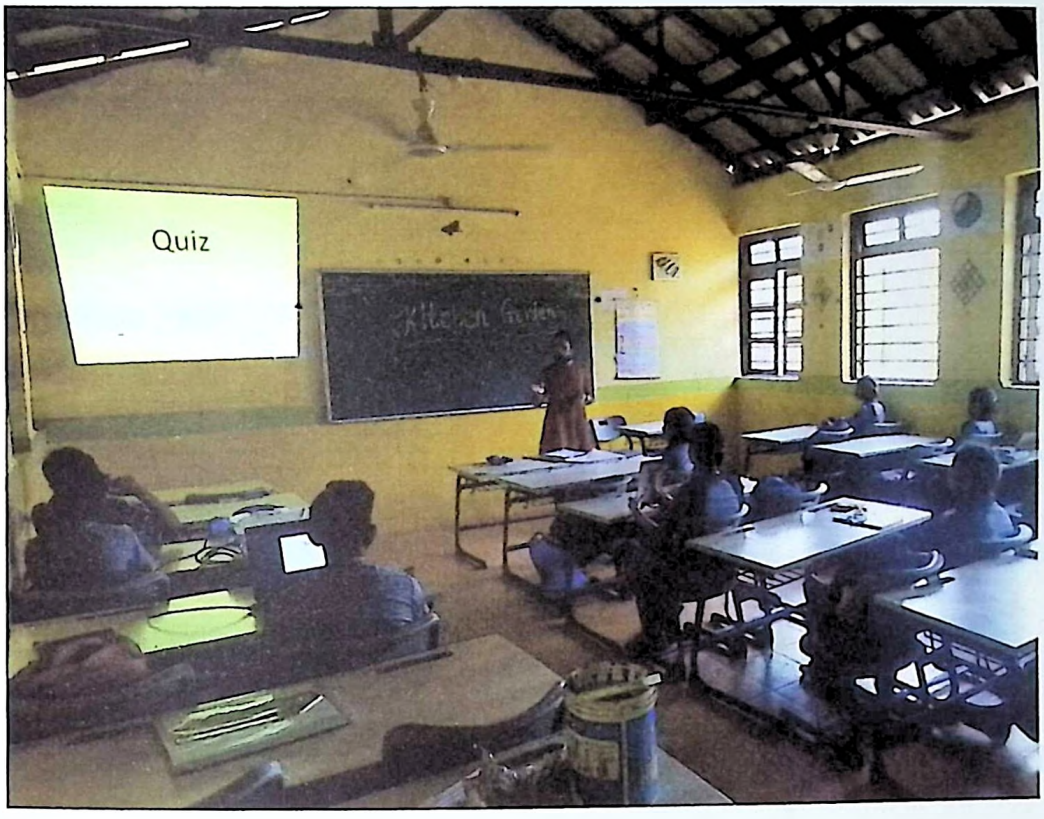
understand that constructivism is a philosophy that beliefs in the ability of students that can constructed their own meaning and knowledge, that they can take responsible and responsive in their own learning.

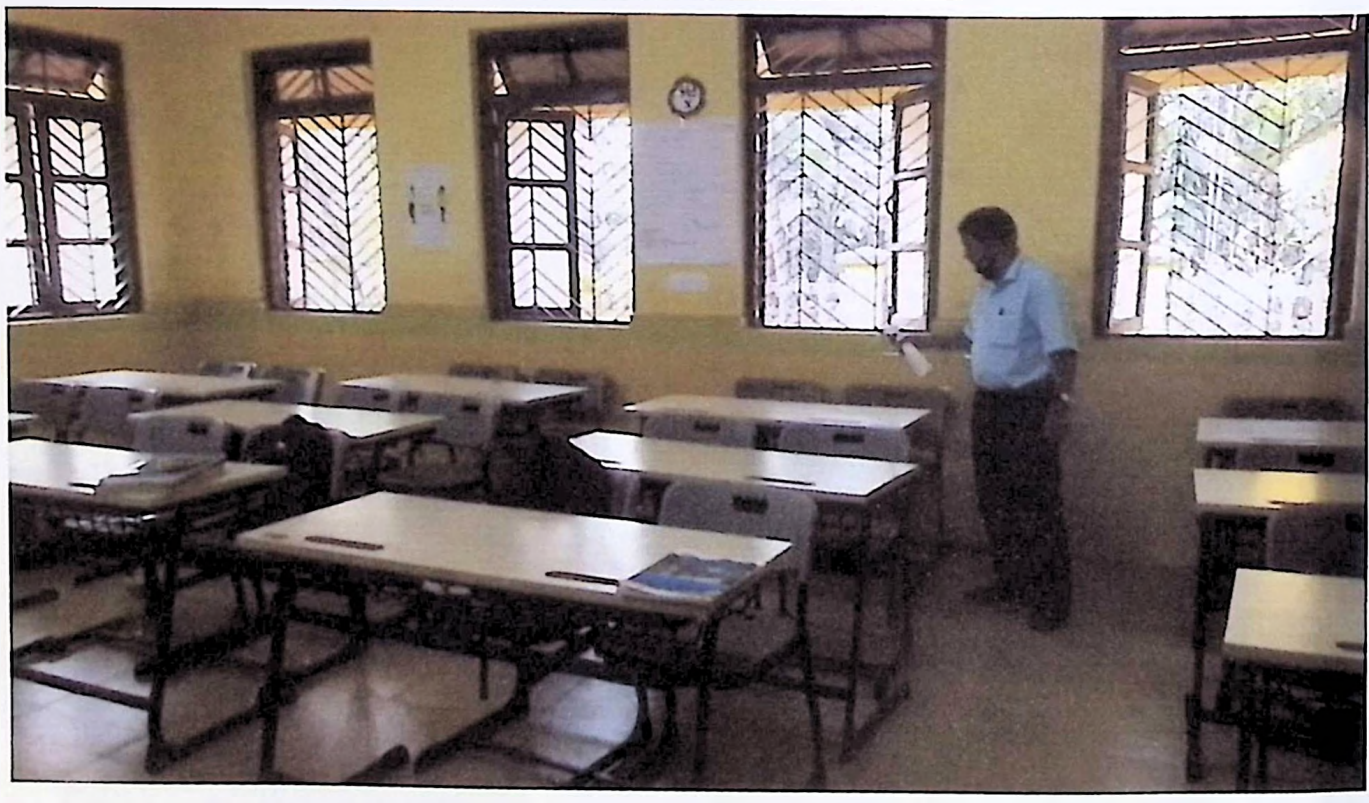
Photos





monitor


Quiz



Annexure

डाटा संग्रह हेतु उपकरण

TOOLS FOR COLLECTION OF DATA

भाग–1: DIET संकाय के टेलीफोनिक साक्षात्कार/ईमेल हेतु Pff

Part I: Questions for Telephonic Interview/Email of DIET Faculty (Pune diet faculty)

क्या आपने सामाजिक विज्ञान में कोई परिशिक्षण कार्यक्रम आयोजित किया है या क्या आपने कभी सामाजिक विज्ञान के किसी राज्य, जिला या अन्य स्तर पर आयोजित प्रशिक्षण कार्यक्रम में भाग लिया है? हाँ/नहीं

Have you conducted any training programme in Social Science or have you been a part of any training programme in Social Science conducted at the state, district or other level? Yes/No

यदि परिशिक्षण लिया है, तो कृपया निम्न जानकारी दीजिये।

If Training conducted, please give the following information

क्र S.No.	प्रशिक्षण की संख्या No. of training conducted	अवधि Duration	स्थान Venue	प्रतिभागी (चाहे वे विकासखण्ड स्तरीय संसाधन व्यक्ति हो, शिक्षक हो या कोई अन्य) Participants (Whether they are Block level Resource Persons, Teachers or others)	प्रतिभागियों की संख्या No. of participants
1.	प्रशिक्षण–1 Training				
2.	प्रशिक्षण–2 Training				
3.	प्रशिक्षण–3 Training				

(कृपया इसके प्रतिभागियों की विस्तृत जानकारी दे)

(Kindly provide detail information about the participants)

प्रशिक्षण माड्युल तैयार किया गया है या नहीं? हाँ/नहीं .....
Was training Module prepared or not? Yes/No_____
यदि हाँ, तो तैयार किये गये परिशाण पैकेज का विषय क्या था? .....
If yes, what was the theme of training package prepared? _____

- क्या यह रचनावादी शैक्षणिक दृष्टिकोण के अनुसार विकसित हुआ जैसा कि RIE भोपाल में परिशक्षकार्यक्रम में किया गया था। हाँ/नहीं .....

☐ Was it develop according to constructivist pedagogical approach as done in the training programme in RIE Bhopal? Yes/No _

- क्या आपने ICT को प्रशिक्षण कार्यक्रम में शामिल किया था? हाँ/नहीं .....

☐ Did you include ICT component in the Training Programme? Yes/No

यदि नही तो क्या आपने भोपाल द्वारा RIEउपलब्ध करायें परिशाण मॉडयुल का प्रयोग किया था। हाँ/नहीं .....
If No, did you use training module provided by RIE, Bhopal?
Yes/No

क्या आपके द्वारा कोई आगामी पशिक्षकार्यक्रम का आयोजन होगा? हाँ/नहीं .....
Any upcoming training programme you will be conducting?
यदि हाँ
Yes/No
(उस समय के दौरान क्षेत्रीय कार्य की योजना और शैक्षणिक प्रक्रिया को जानने हेतु कक्षाकक्ष

If Yes

और साक्षात्कार कार्यक्रम के प्रबंधन का पता कक्षाकक्षशिक्षण प्रक्रियाओं के निरिक्षण से पता लगाना)
(To plan a field work during that time and to observe classroom/training process in order to find out the pedagogical process followed in the classroom and administer Interview Schedule)

भाग–2: कक्षा अवलोकन अनुसूची।

Part I: Classroom Observation Schedule

स.क्र. S.No.	अवलोकन का स्वरूप Aspect of Observation	हां Yes	नहीं No	टिप्पणी Remarks
1.	ऐसे सीखने के विषय जो पूर्वज्ञान या शिद्यार्थी संबंधित है। Topics of learning linked with prior knowledge or past experience of learner			
2.	छात्र की जिज्ञासा जमाने हेतु किये जाने वाली गतिविधियाँ (संदर्भ एक में सूचिबद्ध गतिविधियों की सूची देखे और इसका उपयोग कैसे किया जाता है इस पर ध्यान दें) Activities in the class to arouse curiosity of students (Refer to list of activities listed in Reference 1 and note down in detail how it is used)			
3.	सीखने के संसाधन या सहायक शैक्षणिक सामग्री स्थानीय स्तर पर उपलब्ध है या परिवेश से तत्काल प्राप्त कर कक्षा में उपयोग किया जाता है। Learning resources or teaching aids locally available or found in immediate surroundings are use in the classroom			
4.	पाठ की विषय वस्त, छात्र के दैनिक गतिविधियों से संबंधित है। Contents of the lesson are link with student's daily activities			
5.	छात्र/छात्राओं की पढ़ने व सीखने की प्रक्रिया में सहभागिता। Students participation in teaching learning process			
6.	सभी छात्रों को समान अवसर उपलब्ध कराना। पढ़ाने व सीखने के दौरान Provides equal opportunities to every students			
7.	शिक्षण तकनीकों का समीश्रण Innovative techniques integrated in teaching learning process			
8.	सहयोगात्मक सीखने की पद्धतियों का प्रयोग (संदर्भ 1 में दी गई गतिविधियों को देखे और इसका उपयोग कैसे किया जाता हैं इस पर ध्यान दे।) Cooperative learning techniques used (Refer to list of activities listed in Reference I and note down in detail how it is used) घटकों की सूची देखे और नोट करे कि			

9.	ICT /महत्वपूर्ण िशाण ICT इसका उपयोग कैसे किया जाता है।) ICT components/tools used in teaching learning process (Refer to list of ICT components listed in Reference II and note down in detail how it is used)			
10.	परशनoोo परशनoोo िशाण करना। Critical questions are raised by teachers and students during teaching learning process			
11.	परशनoोo परशनoोo िशाण क्या शिक्षण सीखने की प्रक्रिया के दौरान Questions entertained by teachers anytime in teaching learning process			
12.	िशा ण है। Clarification of concepts provided by teachers to students			
13.	िशाण मूल्यांकन किया जाता है? Regular evaluation are being done in teaching learning process by the teacher			
14.	मूल्यांकन हेतु उपयोग की जाने वाली रणनीति/पद्धति व्यक्तिगत, सामूहिक प्रस्तुति आदि। Evaluation strategies used in classroom: individual, group, presentation etc			
15.	सहयोगात्मक कार्य हेतु कोई परियोजना/कार्य आदि Any Project/Assignment based on collaborative work			
16.	ICT ICT based Project or Assignment given to students			

भाग–3: शिक्षकों के लिए साक्षात्कार अनुसूची

Part 3: Interview Schedule for Teachers

1. नाम: .....

   Name: _____

2. स्कूल / शाला का नाम: .....

   Name of the School: _____

3. लिंग: .....

   Gender: _____

4. भाषा, जिसे आप बोल सकते हैं, पढ़ सकते हैं और लिख सकते हैं। (कृपया टिक करें)

   Language you can speak, read and write (Please Tick)

   मराठी

   Marathi

   हिन्दी

   Hindi

   अंग्रेजी

   English

5. शैक्षणिक योग्यता: .....

   Educational Qualification: _____

6. सम्मिलित हुये पेशेवर प्रशिक्षणों की संख्या: .....

   Number of professional training attended: _____

7. शिक्षणअनुभव: .....

   Teaching experience: _____

8. आप किस कक्षा में पढ़ाते है? .....

   Which class do you teach?_____

9. आप अपनी कक्षा कैसे शुरू करते हैं?

   How do you start your class?

PI और JPF टिप्पणी:
P.I. and JPF note:

10. क्या आप ऐसी स्थिति या गतिविधियों का निर्माण करते है जो छात्रों को उसके प्रज्ञा ज्ञान और अनुभवों को प्रतिबिंव करने के लिए तैयार करती है। हाँ/नहीं .....

Do you create a situation or activities that makes or lead students to reflect on his/her prior knowledge and experiences? Yes/No_____

यदि हाँ तो कैसे?

If yes, how?

PI और JPF टिप्पणी

If yes, what are the processes of this approach you follow?

P.I. and JPF note:

PI और JPF टिप्पणी

P.I. and JPF note:

यदि नहीं तो क्यों?

If no, why?

PI और JPF टिप्पणी

P.I. and JPF note:

11. क्या आप शिक्षणप्रक्रिया के बारे में रचनात्मक दृष्टिकोण के बारे में जानते है? हाँ/नहीं .....

Do you know about constructivist approach to teaching learning process? Yes/No _____

यदि हाँ, तो क्या आप शिक्षण प्रक्रिया में इस दृष्टिकोण का पालन करते हैं? हाँ/नहीं .....

If Yes, Do you follow this approach in teaching learning process? Yes /No_____

यदि हाँ, तो इस दृष्टिकोण की क्या प्रक्रियाएँ हैं?

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यदि नहीं, तो क्यों?

If no, why?

PI और JPF टिप्पणी

P.I. and JPF note:

13. क्या आप अपने शिक्षण अधिगम प्रक्रिया में ICT को एकीकृत करते हैं? हाँ/नहीं .....

What are the methods and techniques use for evaluation or assessment?
Do you integrate ICT in your teaching learning process? Yes/No

यदि हाँ, तो शिक्षण प्रक्रिया में आपके द्वारा अपनाए जाने वाले आईसीटी उपकरण कौन से हैं?

If yes, which are the ICT tools you adopt in teaching learning process?

PI और JPF टिप्पणी

P.I. and JPF note:

यदि नहीं, तो क्यों?

If no, why?

PI और JPF टिप्पणी

P.I. and JPF note:

मूल्यांकन या मूल्यांकन के लिए कौन से तरीके और तकनीक का उपयोग किया जाता है?

PI और JPF टिप्पणी

P.I. and JPF note:

मूल्यांकन और मूल्यांकन के लिए इन विधियों और तकनीकों का उपयोग कैसे किया गया था, इस पर विस्तृत जानकारी दें।

Elaborate on how these methods and techniques were used for evaluation and assessment.

PI और JPF टिप्पणी

If no, have you brought it to the notice of the Authorities on the need of social science laboratory? Yes/No_____

P.I. and JPF note:

14. क्या आपके विद्यालय में एक सामाजिक विज्ञान प्रयोगशाला है? हाँ/नहीं .....

Is there a Social Science Laboratory in your School? Yes/No

यदि हाँ, तो क्या आप इसे शिक्षण अधिगम प्रक्रिया में उपयोग करते हैं?

If yes, do you use it in the teaching learning process?

PI और JPF टिप्पणी

P.I. and JPF note:

यदि नहीं, तो क्या आपने इस सामाजिक विज्ञान प्रयोगशाला की आवश्यकता पर अधिकारियों के ध्यान में लाए हैं? हाँ/नहीं .....

यदि हाँ, तो अधिकारियों की प्रतिक्रिया क्या है?

If yes, what is the response of the authorities?

PI और JPF टिप्पणी

P.I. and JPF note:

यदि नहीं, तो क्यों?

1.1 **If no, why?**

PI और JPF टिप्पणी

P.I. and JPF note:

15. क्या आप छात्रों के लिए फील्ड विजिट करते हैं? हाँ/नहीं .....

Do you conduct field visit for students? Yes/No

यदि नहीं, तो क्यों?

1.2 **If no, why?**

PI और JPF टिप्पणी

P.I. and JPF note:

16. क्या आप छात्रों को प्रोजेक्ट/असाइनमेंट कार्य देते हैं? हाँ/नहीं .....

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Do you give Project/Assignment to students? Yes/No_____

यदि हाँ, तो किस प्रकार के असाइनमेंट कार्य/परियोजनाएँ दी गई हैं?

If yes, what types of assignments/projects are given?

PI और JPF टिप्पणी

P.I. and JPF note:

17. क्या छात्र शिक्षण अधिगम प्रक्रिया में सक्रिय रूप से भाग लेते हैं/शामिल होते हैं? हाँ/नहीं .....

Do Students actively participate/involved in teaching learning process? Yes/No

यदि हाँ, तो क्या आप छात्रों को चर्चा और बहस करने की अनुमति देते हैं?

Ifyes, do you allow students to discuss and debate?

PI और JPF टिप्पणी

P.I. and JPF note:

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भाग–4: मुद्दा समूह चर्चा

Part 4: Focus Group Discussion

चर्चा का पहलू

Aspect of discussion

1. शिक्षकों ने ऐसी स्थिति पैदा की जो छात्रों को उसके पूर्व ज्ञान और अनुभवों को प्रतिबिंबित करने के लिए प्रेरित करती है।

   Teachers created situation that lead students to reflect on his/her prior knowledge and experiences.

2. सीखने की प्रक्रिया को सिखाने वाले आईसीटी उपकरणों का उपयोग और इसका उपयोग करने का तरीका।

   Use of ICT tools teaching learning process and way it is used

3. शिक्षण सीखने की प्रक्रिया में छात्रों की भागीदारी।
   Students involvement in teaching learning process

4. छात्रों को सवाल उठाने के अवसर दिए गए और शिक्षक द्वारा उन पर प्रतिक्रिया दी गई।
   Opportunities given to students in raising questions and how those are responded by the teacher

5. शिक्षण प्रक्रिया में सामाजिक विज्ञान प्रयोगशाला का मौजूदा और उपयोग। इसे स्थापित करने और समृद्ध करने में छात्रों की भूमिका।

   Existing and uses of Social Science Laboratory in teaching learning process. Role of students in setting up and enriching it

6. फील्ड विजिट: कब, कहां और कैसे आयोजित हुआ।
   Field visit: when, where and how it was held.

7. मूल्यांकन या मूल्यांकन के लिए तरीकें और तकनीक का उपयोग करते हैं।
   Methods and techniques use for evaluation or assessment

8. किन विधियों और तकनीकों का उपयोग मूल्यांकन और आंकलन के लिए किया गया था।
   Row these methods and technique were used for evaluation and assessment

9. छात्रों को सामाजिक विज्ञान में परियोजना/असाइनमेंट (प्रकार, आईसीटी आधारित, समूह आधारित या व्यक्तिगत आधारित)

Project/Assignment in Social Sciences to students (types, ICT based, Group based or individual based)

स्कूल में भौतिक और मानव संसाधन की उपलब्धता

Availability of Physical & Human Resources in school

1. विद्यालय के प्रधानाचार्य का नामः .....

   Name of the Principal of the School: _____

2. स्कूल का नाम: .....

   ब्लॉक का नामः .....

   Name of the school: _____

3. जिले का नामः .....

   Name of the Block: _____

क्र. S.No.	विवरण Particulars	प्रतिक्रिया Response
1.	खेल के मैदान की उपलब्धता Availability of Playground	1. हाँ 2.नहीं 1.Yes, 2.No
2.	खेल और खेल सामग्री की उपलब्धता Availability of Sports and games materials	1. हाँ 2.नहीं 1.Yes, 2. No
3.	बिजली का प्रावधान Provision of electricity	1. हाँ 2.नहीं 1.Yes, 2. No
4.	सुरक्षित पेयजल सुविधाओं का प्रावधान Provision of safe drinking water facilities	1. हाँ 2.नहीं 1.Yes, 2.No
5.	लड़कों, लड़कियों और शिक्षकों के लिए शौचालय की सुविधा अलग है Toilet facility separate for boys, girls and teachers	1. हाँ 2.नहीं 1.Yes, 2.No
6.	बागवानी की सुविधा Gardening facility	1. हाँ 2.नहीं 1.Yes, 2.No
7.	पुस्तकालय की सुविधा Library facility	1. हाँ 2.नहीं 1.Yes, 2.No
8.	सांस्कृतिक कार्यक्रम Cultural programme	1. हाँ 2.नहीं 1.Yes, 2.No
9.	एमडीएम का प्रावधान Provision of MDM	1. हाँ 2.नहीं 1.Yes, 2.No
10.	किए गए सामाजिक जागरूकता कार्यक्रम Social awareness programmes conducted	1. हाँ 2.नहीं 1.Yes, 2.No
11.	सामाजिक विज्ञान शिक्षकों की पर्याप्त संख्या Sufficient numbers of social science teachers	1. हाँ 2.नहीं 1.Yes, 2.No
12.	स्कूल का माहौल पिछड़े छात्र की मदद करता है या नहीं Whether the School environment helps the backward student	1. हाँ 2.नही 1.Yes, 2.No
13.	सामाजिक विज्ञान लैब की उपलब्धता	1. हाँ 2.नहीं

	Availability of Social Science Lab	1.Yes, 2.No
14.	छात्र के स्थानीय ऐतिहासिक और भौगोलिक स्थानों पर फील्ड विजिट का प्रावधान Provision of Field Visit of student to local historical and geographical places	1. हाँ 2.नहीं 1.Yes, 2.No
15.	संवादात्मक सफेद बोर्ड Interactive White Board	1. हाँ 2.नहीं 1.Yes, 2.No
16.	इंटरनेट कनेक्शन Internet Connection	1. हाँ 2.नहीं 1.Yes, 2.No
17.	कंप्यूटर Computer	1. हाँ 2.नहीं 1.Yes, 2.No
18.	प्रोजेक्टर Projector	1. हाँ 2.नहीं 1.Yes, 2.No

चित्र / चित्र

आदर्श

समाचार पत्र

पुस्तकें

पत्रिकाओं

पत्रिका

शब्दकोश

विश्वकोश

इलेकट्रोनिक मीडिया

रेडियो कार्यक्रम (लाइव या रिकॉर्डेड)

टेलीविजन

वीडियो / क्लिप या लंबी फिल्मों का सार

संदर्भ II: कक्षा में आईसीटी घटक उपयोग करते हैं

Reference II: ICT components use in the classroom

क्र. S. No.	वस्तुओं पर टिप्पणी Items of Observation	हाँ Yes	नहीं No
A	प्रिंट मीडिया Print Media		

i	Pictures/Images		
ii	Model		
iii	Newspaper		
iv	Books		
v	Journals		
vi	Magazines		
vii	Dictionary		
viii	Encyclopedia		
B	**Electronic Media**		
i	Radio programmes (Live or Recorded)		
ii	Television		
iii	Videos/Clip or Abstract of lengthy films		
C	कंप्यूटर **Computer**		
D	संचार नेटवर्क **Communication networks**		
i	Google YouTube लिए). NROER Internet - Search Engine (Google, etc.) YouTube, Podcast, Blogs, Emails, Chats, Text Messaging, Slideshare (for PPTs and other		

	material), NROER, etc.		
ii	मोबाइल फोन और अनुप्रयोग (सोशल नेटवर्किंगः व्हाट्सएप, फेसबुक, ट्विटर, आदि) Mobile phones and applications (Social Networking: WhatsApp, Facebook, Twitter, etc.)		
E	अन्य **Others**		
i	गूगल अर्थ Google Earth		
ii	गूगल मैप Google Map		
iii	सोलर सिस्टम 3 डी Solar System 3D		
iv	स्टार चार्ट Star Chart		
v	सन लोकेटर लाइट Sun Locator Cite		
vi	Google क्लासरूम Google Classroom		
vii	एमएस एक्सेल शीट MS Excel Sheet		
F	पावर पॉइंट प्रदर्शन Power point presentation		
G	संवादात्मक सफेद बोर्ड Interactive White Board		
H	कोई अन्य अवलोकन Any other observed:		
	गतिविधि पर टिप्पणी: **Remarks on the activity:**		
	गतिविधि का उद्देश्य Objective of the activity		
	गतिविधि कैसे आयोजित की गई थी **How was the activity organized**		

	गतिविधि का आकलन किया गया था या नहीं? यदि हाँ, तो कैसे **Whether assessment of activity was done or not? If Yes, How**		
	मूल्यांकन के बाद शिक्षार्थियों का फीडबैक दिया गया/प्रदान किया गया **Feedback to the learners after assessment was done/provided**		

PAC 16.15

संदर्भ I:
Reference I:

क्र. S.No.	संदर्भ I Reference-I	ह ओ Yes	नह ओ No
	कक्षा में देखी जाने वाली गतिविधियाँ **Activities observed in the classroom**		
i	भूमिका निभाना Role playing / Hindi		
ii	एक समूह में चर्चा Group discussion		
iii	तर्क / बहस Arguments/debate		
iv	वैचारिक स्पष्टता के लिए प्रश्न करना Questioning for conceptual clarity		
v	संकल्पना मानचित्रण Concept mapping		
vi	कार्ड से बाहर निकलें Exit cards		
vii	हास्यकर Humorous		
viii	कहानी Story telling		
ix	प्रश्नोत्तरी Quiz		
x	बेल की कहानी Bell story		
xi	क्षेत्र का दौरा Field Visit		
xii	कोई अन्य Any other		
	गतिविधि पर टिप्पणी (PI और JPF टिप्पणी) Remarks on activity (P.I and JPF Note)		
	गतिविधि का उद्देश्य Objective of the activity		
	गतिविधि कैसे आयोजित की गई थी?		

	How was the activity organized?		
	क्या गतिविधि का आकलन किया गया था। यदि हाँ, तो कैसे। Whether assessment of activity was done. If yes, How?		
	मूल्यांकन के बाद शिक्षार्थियों को प्रतिक्रिया प्रदान की गई। Feedback to the learners after assessment was provided.		
	शिक्षक द्वारा सुझाई गई प्रक्रिया का पालन करें। Follow up process suggested by the teacher.		

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